#### SMITHSONIAN INSTITUTION

#### UNITED STATES NATIONAL MUSEUM

WASHINGTON, D. C.

August 6, 1936.

Prof. M. L. Fernald, Curator of Gray Herbarium, Harvard University, Cambridge, Massachusetts.

Dear Professor Fernald:

Mr. Morton has prepared the final report of Dr. Skutch's Costa Rican collection of which you purchased a set, as follows:

2383. Skutchia caudata Pax & Hoffm. Gen. & sp. nov. type. 2386.

2387. Holtonia myriantha Standl. New to North America.

Det. Standley. 2539. Ladenbergia calycina (Wedd.) Standl. New to North America. Det. Standley.

Correction.

2489. Apinagia myriophylla Wedd. Det. C. V. Morton (not Maranthrum Schiedeanum)

Sincerely yours,

Elseworth P. Melif

Ellsworth P. Killip
Associate Curator
Division of Plants.

Assert Hand.



Costa Rica Plants collected by Alexander F. Skutch, 1935-36.

Lichens identified by C. W. Dodge, Pteridophytes by William R. Maxon, Gramineae by Mrs. Agnes Chase, Acanthaceae by E. C. Leonard, Bromeliaceae by Lyman B. Smith, Passiflora, Cordia, and Urticaceae by E. P. Killip, Melastomaceae by H. A. Gleason, and the remainder by C. V. Morton.

(Groupsstill to be reported on are the mosses, Orchidaceae, Piperaceae, Apocynaceae, Compositae, and 2 numbers each of Rubiaceae and Euphorbiaceae)

nos checked "-" are in to the

- 2144. Pavonia dasypetala (Turcz.) Standl.
- 2146. Begonia cuspidata C. DC.
  - 2149. Vittaria filifolia Fée
- -2150. Vittaria stipitata Kunze
- ·2151. Polypodium chnoodes Spreng.
- 2152. Asplenium auritum Sw.
- · 2153. Polypodium pectinatum L., sens. lat.
- . 2154. Asplenium fragrans Sw. (Reduced form)
- ·2155. Lasiacis scabrior Hitchc.
- o2159. Stictina andensis Nyl.
- -2160. Trichomanes polypodioides L.
- 2161. Hemitelia multiflora (J. E. Sm.) R. Br.
- ·2162. Trichomanes rigidum Sw.
- 2163. Polypodium plicatum Maxon, sp. nov.
- 2164. Leptogium Standleyi Dodge
- 2165. Psychotria involucrata Sw.
- · 2166. Salpichlaena volubilis (Kaulf.) J. Sm.
- · 2167. Lasiacis procerrima (Hack.) Hitchc.
- 2168. Solanum diversifolium Schlecht.
- 2169. Hyptis sp.
- '2171. Funastrum clausum (Jacq.) Schltr.
- , 2172. Hyptis suaveolens Poit.
- 2173. Tibouchina Bourgaeana Cogn.
  - ·2177. Valeriana mikaniae Lindl.
- 2178. Ardisia compressa H.B.K.
- ·2180. Danaea nodosa (L.) J. E. Sm.
- ·2181. Dryopteris falcata (Liebm.) C. Chr.
- 2182. Saccoloma inaequale (Kunze) Mett. 2184. Miconia serrulata Naud.
- ·2185. Salvia hyptoides M. & G.
- · 2186. Miconia dodecandra (Desr.) Cogn.
  - ·2188. Oxypetalum riparium H.B.K.
  - ·2189. Lasiacis ruscifolia (H.B.K.) Hitchc.
- 2190. Henriettella tuberculosa D. Sm.
- 2191. Calyptrella cycliophylla D. Sm.
- -.2193. Monnina sylvatica C. & S.
- ·2194. Manettia coccinea (Aubl.) Willd.
- 2195. Centrosoleniaicostaricana Morton, n. sp. type.
- · 2196. Centropogon mutans Pl. & Oerst.

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2197. Dioscorea remota Morton n. sp., type
     . 2200. Pteris pungens Willd.
              10
     ₽ 2203.
                    biaurita L.
     , 2204. Begonia filipes Benth.
     · 2205. Borreria ocymoides (Burm.) DC.
      · 2206. Lasiacis Standleyi Hitchc.
    - · 2210. Phyllonoma ruscifolia Willd.
    - 0 2211. Clematis dioica L.
    - 02212. Hedyosmum calloso-serratum Oerst.
      .2213. Oplismenus Burmanni (Retz.) Beauv.
      ·2214. Panicum pulchellum Raddi
2215. Oplismenus hirtellus (L.) Beauv.
      · 2216. Selaginella eurynota A. Br.
      . 2217. Lycopodium cernuum L.
      2218. Paspalum conjugatum Berg.
    - 2220. Siparuna nicaraguensis Hemsl.?
      · 2221. Ichnanthus pallens (Sw.) Munro
                           11
                 II.
     · 2222.
      .2223. Scleria melaleuca C. & S.
      ·2224. Pteris biaurita L.
      ·2225. Ipomoea syringaefolia Meisn.
      · 2226. Lasiacis oaxacensis (Steud.) Hitchc. form
     - . 2227. Rheedia edulis Tr. & Pl.
     - 2228. Cephaelis tomentosa (Aubl.) Vahl
      ·2229. Lindsaea horizontalis Hook.
      · 2231. Coccocypselum hirsutum Bartl.
      .2232. Pterolepis trichotoma (Rottb.) Cogn.
      · 2233. Lepidagathis alopecuroidea (Vahl) R. Br.
      · 2234. Desmodium adscendens Sw.
      ·2235. Cyperus diffusus Vahl
     -0 2237. Casearia sylvestris Sw.
      · 2238. Desmodium intortum Mill.
      ·2240. Pteris mollis Christ
      · 2241. Lindsaea quadrangularis Raddi
      2244. Parmeliella pannosa Sw.
      2245. Trichomanes punctatum Poir.?
      2246. Begonia glabra Aubl.
      · 2249. Trichomanes Galeottii Fourn.
    - 2250. Heliocarpus excelsior Morton n. sp. type
     - -2251. Viburnum costaricamum (Oerst.) Hemsl.
      . 2254. Olyra lateralis (Presl) Chase
       · 2255. Coccocypselum canescens Willd.
     - 2256. Cissus cardiophylla Standl.?
       · 2259. Cochlidium rostratum (Hook.) Maxon
     - 2260. Clidemia rubra (Aubl.) Mart.
       ·2261. Dioclea 4 macrantha Ducke
2262. Miconia pteropoda Benth.
     - 2263. Barbiera pinnata (Pers.) Baill.
     - 2264. Rubus trichomallus Schlecht.
       . 2265. Hemitelia choricarpa Maxon
     - 2266. Heliocarpus excelsior Morton
     - 2267. Gouania lupuloides (L.) Urban?
     - 2268. Malvaviscus arboreus Cav. sens. lat.
      - 2269. Melochia lupulina Sw.
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· 2270. Ipomoea purga (Wender.) Hayne
  · 2271. Eleocharis interstincta (Vahl) R. & S.
  · 2273. Polygonum punctatum Ell.
- 2275. Vismia ferruginea H.B.K.
- 2278. Psychotria brachiata Sw.
  · 2279. Struthiopteris exaltata (Fee) Broadh.
  · 2280. Polytaenium brasilianum (Desv.) Benedict
  · 2284. Trichomanes Kraussii Hook. & Grev.
                                                 (Not distributed)
   2285. Asplenium pseudoerectum Hieron.
  <sup>5</sup> 2286.
  · 2289. Trichomanes capillaceum L.
  ·2291. Anthurium sp.
- ° 2292. Lippia myriocephala C. & S.
  · 2294. Monocardia violacea Pennell
  · 2295. Trismeria trifoliata (L.) Diels
  · 2296. Anemia phyllitidis (L.) Sw.
- . 2297. Dicliptera acuminata Juss.
- . 2298. Cuphea infundibulum Koehne
  . 2299. Nephrolepis pendula (Raddi) J. Sm.
2300. Calliandra portoricensis (Jacq.) Benth.
  2301. Coix lacryma-jobi L.
  2302. Polystichum platyphyllum (Willd.) Presl
2303. Dryopteris Tonduzii (Christ) C. Chr.
  .2304. Asplenium Otites Link
  · 2305. Blechmum occidentale L.
  2306. Adiantum tetraphyllum H. & B. (sens. lat.)
  2307. Hemionitis palmata L.
 - 2308. Acacia angustissima (Mill.) Kuntze
 - 2309. Sida urens L.
   ~2311. Pilea pubescens Liebm.
  2313. Hymenophyllum ciliatum Sw.
  · 2315. Trichomanes pyxidiferum L.
                                      (verum)
  · 2318. Euphorbia graminea Jacq.
  · 2319. Cyclanthera Tonduzii Cogn.
 - ,2320. Myriocarpa izabalensis (D. Sm.) Killip
- .2321.
 - · 2325. Salacia praecelsa (Miers) Griseb.
  · 2327. Scutellaria glabra Leonard
  · 2328. Asplenium fragrans Sw. (Reduced form)
  . 2329. Diplazium sp., near D. striatum (L.) Presl
  · 2330. Dryopteris Linkiana (Presl) Maxon
                     exculta var. guatemalensis (Baker) C. Chr.
   .2331.
   2332. Selaginella binervis Liebm.
   . 2333. Diplazium obscurum Christ
              grandifolium Sw.
  0 2333 1/2
 - · 2336. Tovomitopsis glauca Oerst.
  · 2337. Dryopteris subincisa (Willd.) Urban
  2338. Tectaria Sodiroi (Baker) Maxon
  2339. Asplenium abscissum Willd.
  .2344. Diplazium subsivaticum Christ
   ·2346. Centrosema Plumieri (Turp.) Benth.
   · 2347. Tinantia erecta (Jacq.) Schl. var.
 - .2350. Serjania racemosa Schum.
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- · 2351. Polypodium angustifolium Sw. - . 2353. Miconia leucantha Gleason \* 2354. Asplenium Otites Link 2357. Asplenium cristatum Lam. · 2358. Carex polystachya Wahl. · 2359. Isachne arundina cea (Sw.) Griseb. 2360. Tectaria dilacerata (Kunze) Maxon , 2361. Dryopteris equestris var. heterofepis C. Chr. - · 2362. Cardiospermum grandiflorum Sw. - 2364. Solanum bicolor Willd.? 2366. Calonyction aculeatum (L.) House - 2367. Rivina laevis L. .2369. Begonia conchaefolia D. Dietr. · 2370. Salvia alvajaca Oerst. 2372. Tovaria pendula R. & P. - .2374. Conostegia sp. - · 2375. Miconia reducens Triana 2376. Chrysochlamys sp. .2377. Dryopteris sp. nov. .2378. submarginalis (L. & F.) C. Chr. -. 2379. Cephaelis elata Sw. -.2381. Miconia sp. - 2384. Ardisia compressa H.B.K. · 2385. Vernonia argyropappa Buek det. Gleason - 2388. Cestrum laurifolium L'Her.? 2389. Lycopodium tubulosum Maxon 2390. Aechmea Bernoulliana Wittm. det. Morton , 2393. Polypodium blepharodes Maxon 2394. Diploschistes sp. 2395. Graphina sp. - 2398. Banisteria Beecheyana (A. Juss.) C. B. Rob. -- 2399. Topobea Durandiana Cogn. - · 2400. Mimosa albida H. & B. var. · 2403. Rhymchospora polyphylla Vahl - - 2407. Vernonia canescens H.B.K. det Gleason · 2410. Hamelia patens Jacq. 2411. Polypodium sp. nov. · 2412. Pennisetum bambusiforme (Fourn.) Hemsl. - 2413. Hybanthus attenuatus (H. & B.) G. K. Schulze - . 2416. Cestrum scandens Vahl -. 2417. Solanum incomptum Bitt. - 2418. Buddleia americana L. - 2419. Begonia carpinifolia Liebm.
- 2419. Begonia carpinifolia Liebm. 2420. Dombeya lappacea L'Her. 2421. Polytaenium lineatum (Sw.) J.
- 2421. Polytaenium lineatum (Sw.) J. Sm. 2422. Sommera grandis (Bartl.) Standl. 2424. Chaetocalyx latisiliqua (Desv.) Benth.
- 2426. Elateriopsis Oerstedii (Cogn.) Pitt. 2427. Pachyrhizus tuberosus (Lam.) Spreng.?
- 2428. Cassia sp. aff. Pėiranisia longirostrata B. & R.

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2430. Henriettella sp. Probably new.
 o 2433. Catillaria sp.
- 02435. Porina sp.
  ·2436. Columnea florida Morton, n. sp. type
 02437. Chamaedorea macrospadix Oerst.
- 2439. Alchornea latifolia Sw.
 · 2440. Sauvagesia erecta L.
- · 2441. Bellucia costaricensis Cogn.
- 2442. Alchornea latifolia Sw.
- 2443. Jussiaea affinis DC.
 2446. Polypodium limula Christ
- . 2447. Miconia Mathaei Naud.
- · 2449. Psychotria sp.
- 2450. Hieronyma oblonga var. Benthamii (Tul. ) Muell. Arg.
 - · 2451. Solanum rugosum Dunal
 ·2453. Justicia pectoralis Jacq.
- · 2454. Wissadula excelsior (Cav.) Presl
 · 2455. Indigofera mucronata Spreng.
- . 2457. Miconia sp.
 · 2458. Cuscuta corymbosa var. grandiflora Engelm.
- 2459. Cestrum n. sp.?
- · 2461. Cassia brevipes DC.
 · 2462. Stylosanthes guianensis (Aubl.) Sw.
  ·2463. Acisanthera quadrata Juss.
 . 2464. Aeschynomene sensitiva Sw.
 · 2465. Tonina fluviatilis Aubl.
- · 2466. Jussiaea lithospermifolia Kunth
 2467. Xyris macrocephala Vahl
  -2568. Desmodium barbatum (L.) Benth. & Oersted
  ·2469. Rhynchospora cyperoides (Sw.) Mart.
 .2470. Scleria bracteata Cav.
 - 2471. Tephrosia nitens Benth.
- 2472.
  · 2474. Browallia americana L.
- · 2476. Burmeistera suerrensis Wimm. det. Gleason
- - 2477. Miconia habrolepis Standl.
  · 2480. Diplazium atirrense (Donn. Sm.) Morton
 2481. Cladonia didyma var. muscigena (Eschw.) Vain
-, 2486. Phaseolus speciosus H.B.K.
 · 2487. Acalypha tenuicauda Pax & Hoffm.? ex char.
 · 2488. Vernonia patens H.B.K. det. Gleason
  ·2489. Marathrum Schiedeanum Cham.
 · 2490. Nectandra villosa Mez
 ·2492. Doliocarpus dentatus (Aubl.) Standl.
 - · 2493. Palicourea costaricensis Benth.
 - 2495. Marila verapazensis D. Sm.
 - 2496. Carica dolichaula D. Sm.
 - 2497. Hampea appendiculata (D. Sm.) Standl.
 - 2498. Fovomitopsis glauca Oerst.
 - 2500. Miconia leucantha Gleason, n. sp. type
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- 2501. Allophyllus psilospermus Radlk.

- 2503. Miconia sp.

- 2505. Clematis dioica L.

- -. 2506. Machaerium costaricanum Pitt.
- 2508. Vochysia ferruginea Mart.

- 2509. Cordia glabra L.?

- 2510. Simaruba glauca DC.
- 2511. Banara guianensis Aubl. var. 2513

- £2513. Miconia sp.

- . 2515. Brunellia Skutchii Morton, n. sp., type
- · 2516. Rhynchosia pyramidalis Lam.

-2518. Inga multijuga Benth.

- · 2519. Hasseltia mexicana (Gray) Standl. · 2520. Lacistema aggregatum (Berg.) Rusby
  - · 2522. Tristicha hypnoides (St. Hil.) Spreng.

2524. Juanulloa Sargii D. Sm.

- ·2525. Vernonia brachiata Benth. det. Gleason
- ·2526. Dorstenia chocoiana var. integrifolia D. Sm.
- ·2529. Trichomanes rupestre (Raddi) v. d. B.

.2531. Asplenium laetum Sw.

- · 2532. Tectaria heracleifolia (Willd.) Underw.
- 2533. Cyphomandra costaricensis D. Sm.
- 2537. Miconia scorpioides (C. & S.) Naud.
- 2538. Hydrangea Skutchii Morton, n. sp. type
- · 2540. Ichnanthus axillaris (Nees.) Hitchc. & Chase

- 2541. Matayba n. sp.?

- .2542. Dryopteris espidioides (Willd.) C. Chr.
- .2543. Selaginella flabellata (L.) Spring
- 2544. Trichilia Oerstediana C. DC.
- 2546. Tournefortia bicolor Sw.

2547. Physcia sorediosa

- · 2548. Cissampelos pareira L.
- . 2549. Miconia argentea (Sw.) DC.
  - º 2550. Pitcairnia heterophylla (Lindl.) Beer

· 2551. Hymenophyllum fucoides Sw.

2552. Trichomanes Kraussii Hook. & Grev.

~ 2553. Guatteria dolichopoda D. Sm.

- · 2556. Jacobinia macrantha (Oerst.) Benth. & Hook.
- o 2559. Tillandsia chontalensis Baker
- -. 2562. Boehmeria ulmifolia Wedd.

- 2563. Iresine celosia L.

- .2564. Iresine frutescens Mog.
- 2568. Smilax panamensis Morong

2569. Cordia alliodora (R. & P.) Cham.

/2570. Ipomoea sp. aff. trichocarpa Ell, Perhaps new.

- 2571. Jussiaea peruviana L.

- 2572. Gilibertia gonatopoda D. Sm. Det. A. C. Smith

- 2573. Aphelandra Sinclairiana Nees

- 2574. Blechum ruellioides Leonard n. sp. type

~ .2575. Croton glabellus L.

- 2576. Justicia glabra (Oerst.) Benth. & Hook. . 2577. Leptochilus cladorrhizans (Spreng.) Maxon

2580. Anthurium trinerve Miq.

- · 2581. Crotalaria guatemalensis Benth.
- · 2582. Conostegia lanceolata Jogn.

- 0 2583. Smilax panamensis Morong

- 2584. Chaetoptelea mexicana Liebm.

- · 2585. Chrysochlamys psychotriaefolia Hemsl.

- 2587. Serjania mexicana Willd.

2588. Solanum Donnell-Smithii Coult.

- '2589. Guatteria n. sp.?

- · 2590. Hedyosmum calloso-serratum Oerst.

2591. Besleria acutifolia Benth.

- . 2594. Clusia odorata Seem.

2595. Sloanea meianthera D. Sm.?

7 2596. Alchornea costaricensis Pax-& Hoffm.?

-2597. Dryopteris concinna (W illd.) Kuntze

· 2598. Marathrum Schiedeanum Cham.

- 2599. Phenax hirtus (Sw.) Wedd.

T.2600. Trema canescens Blume

\_ 2601. Allophyllus psilospermus Radlk.

2602. Tradescantia cumanensis Kunth

- .2603. Croton draco var. hibisciformis Muell. Arg.

- .2604. Conostegia sp.

2606. Blechnum unilaterale Sw.

2607. Trichomanes pinnatum Hedw.

, 2609. Mollinedia Pinchotiana Perk.

- 2610. Alchornea costaricensis Pax & Hoffm.?

\_ .2613. Symphonia globifera L. f.

02615. Nectandra glabrescens Benth.

- · 2616. Cassia bacillaris L.

02617. Passiflora vitifolia H.B.K.

- 2618. Struthanthus polystachya (R. & P.) Blume?

- . 2619. Hyptis obtusiflora Presl

· 2620. Icica costaricensis Rose

- .2623. Conostegia bigibbosa Cogn.

2626. Anthurium Bakeri Hook.

2628. Mollinedia Pinchotiana Perk.

· 2629. Alternanthera laguroides Standl.

- · 2630. Hydrangea Skutchii Morton

\*2632. Asplenium formosum Willd.

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- 2583. Smilax panemensis Morong
- 2584. Chaetoptelea mexicana Liebm.
- . 2585. Chrysochlamys psychotriaefolia Hemsl.
  - · 2587. Serjania mexicana Willd.
  - 1588. Solanum Donnell-Snithii Cailt.
    - '2589. Suatteris n. sp.?
  - · 2590. Hedyosmam calloso-serretum Cerst.
    - 2591. Besleria acutifolia Renth.
      - . 2594. Clusia odorate Seem.
    - 2595. Sloanes metanthera D. Sm.
- 1596. Alchornea costaricensis Pax & Hoffm.
- \*2597. Oryopteris concinna (W illd.) Kuntse
  - · 2598. Marathrum Schiedeenum Cham.
    - ~ 2599. Phenex hirtus (Sw.) Wedd.
      - 2600. Trema canescens Blune
  - 2601. Allophyllus psilospormus Radlm.
    - 2602. Tradescantia cumanensis Kunth
- .2603. Croton drace var. hibiscifermis Muell, Arg.
  - .2604. Conssteria so.
  - 2506. Picchna on Prierale Sw.
  - 1607. Trichomanes pinnatum Hedw.
  - · 2605. Mollinedia Pinchoti na Perk.
  - \*2610. Alchornea costaricensis Pax & Hoffm.?
    - · 2813. Symphonia globifera L. f.
    - 2515. Noctandra globrescens Benth.
      - · 2616. Cassia b cillaris L.
    - .N.E.H sifofijiv stolfisse 7.7160
  - 2618. Struthanthus polystachya (2. & P.) Blume?
    - 2610. Hyptis obtusiflors Presl
    - · 2620. Icics costaricensis Rose
    - .2623. vonostegia bigibbosa Cogn.
      - 2626. Anthurium Bakeri Hook.
    - 7628. Mollinedia Pinchoticna Fert.
    - . 2629. Alternanthera leguroides It andl.
      - 2630. Hydranges Skutchii Morton
      - 2632. Asplenium formosum Willd.

W. S. M. MAI 20 1930 [ Skutch, 1935-36.

Costa Rica Plants collected by Alexander F. Skutch, 1935-36.

Supplementary list.

(Note: -- All numbers now reported upon excepting 2 Rubiaceae, 2 Euphor-biaceae and 2 Compositae)

Mosses identified by E. Bartram, Orchidaceae by O. Ames, Piperaceae by W. Trelease, Compositae by S. F. Blake, and Apocynaceae by R. Woodson.

" = at 9. H.
" - " = at 9. H.

2145. Micromitrium lamprocarpum (C. M.) Par. 2148. Rhacopilum tomentosum (Sw.) Brid. \_ 2156. Piper formici-tolerans Trel. n. sp. type subasperatum Trel. n. sp. ∠ 2157. " captum Trel. n. sp. type ∠ 2158. · ~2170. Tagetes microglossa Benth. → 2174. Piper vagans Trel. " linearifolium C. DC. √ 2175. ∠ 2176. Eupatorium laevigatum Lam. \_ 2179. Piper ducis Trel. n. sp. type - 2183. " marginatibaccum Trel. n. sp. type - 2187. Oliganthes discolor (H.B.K.) Sch. Bip. - 2192. Oyedaea verbesinoides DC. , v2198. Ponthieva racemosa (Walt.) Mohr . v.2199. Peperomia tenuinervis Trel. n. sp. type 2202. Philonotis uncinata (Schwaegr.) Brid. √2207. Calymperes nicaraguense Ren. & Card. New to Costa Rica. √2208. Microthamnium Lehmanii Besch. 2209. Ochrobryum Gardnerianum Mitt. New to Costa Rica. 2219. Zexmenia frutescens (Mill.) Blake . V2239. Ichthyothere scandens Blake 2242. Rhigogonium spiniforme (Hedw.) Bruch 2248. Brachymenium radiculosum (Schwaegr.) Par. New to Costa Rica. v 2252. Octoblepharum albidum Hedw. - 2268. Hymenostephium cordatum (H. & A.) Blake . 42272. Spilanthes americana (Mutis) Hieron. . 2274. Mikania micrantha H.B.K. √2277. Oncidium Titania Schltr. · 2281. Peperomia tecticola C. DC. ✓2282. Tayloria Moritziana C. M. 2283. Piper sagittifolium C. DC. 2288. Peperomia antennifera Trel. n. sp. type 2287. Peperomia gleicheniaeformis Trel. n. sp. √2290. Piper conceptum Trel. " heterophlebium Trel. n. sp. type - v 2293.

sesquipedale Trel. n. sp. type

\_\_ /2310. Eupatorium odoratum L. \_ /2312. Piper sublineatum Kuntze

- 2314. II

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v. 2316. Lockhartia amoena Endres & Rchb. f.
   2317. Piper pileatum Trel.
 _√2317 1/2 Piper pileatum Trel.
→ , 1 2323. Allomarkgrafia plumeriaefolia Woods. New to North America.
    2324. Specimen unidentifiable. Destroyed.
   2335. Peperomia Jimenezana (C. DC.) Trel.
   1 ≥ 2340. Peperomia peltilimba C. DC.
   2341. Melanthera deltoidea Michx.
   2342. Bidens pilosa L.
 _ √ 2343. Piper magnilimbum C. DC.
  √. 2345. Viguiera sylvatica Klatt.
   2348. Epidendrum Pseudepidendrum Rchb. f.
  1. 2349. Mikania punctata Klatt.
   √ 2352. Entodon Hampeanus C. M.

√2355. Stenorrhynchus speciosus (Jacq.) L. C. Rich.

 - √ 2356. Piper carrilloanum C. DC.
   √·2363. Mikania guaco H. & B.
   J. 2365. Mikania Standleyi Rob.
- 1 d 2371. Zexmenia virgulta Klatt.
 -√2373. Piper longepetiolatum (C. DC.) Trel.
   √2380. Peperomia pseudotetraphylla Trel.
 -/ 2382. Otopappus verbesinoides Benth.
 -/ 2396. Calea Pittieri Rob. & Greenm.
  √. 2397. Pleurothallis stenostachya Rchb. f.
  /-2401. Peperomia ligescens C. DC.
   2404. Sematophyllum flavidum Mitt. New to Costa Rica.
   / 2405. Oncidium Rechingerianum Kränzlin
  1.2406. Eupatorium pycnocephalum Less.
  √ 2408. Mikania cordifolia (L.) Willd.

√ 2409. Cosmos caudatus H.B.K.

  · 2423. Alomia microcarpa (Benth.) Rob.
  √ . 2425. Eupatorium solidaginoides H.B.K.
─v.2429. Baccharis trinervis (Lam.) Pers.
  \nu .2438. Masdevallia attenuata Rchb. f.
  V.2445.
            В
                      Laucheana Kranzlin
- 1. 2452. Baccharis trinervis (Lam.) Pers.
  2460. Eupatorium amygdalinum Lam.
2473. Tristicha hypnoides (St. Hil.) Spreng. 2479. Piper delectans Trel. n. sp. type

∠ J . 2482. Eupatorium vitalbae DC.
  √ · 2484. Sobralia pleiantha Schltr.
  1 · 2485. Scaphiglottis mesocopis (Endres & Rchb. f.) B. & H. ex Hemsl.
  2491. Trixis divaricata (H.B.K.) Spreng. Apparently first North American
                 record.
  \sqrt{\phantom{a}} 2494. Fissidens pyrenocystis Card. New to Costa Rica
  √ . 2502. Senecio schizotrichus Greenm. n. sp. type
  · 2504. Piper salulatrix Trel. n. sp. type
  2507. Neurolaena lobata (L.) R. Br.
  ·2512. Mikania riparia Greenm.
             H
  2514.
                   Skutchii Blake, n. sp. type
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- / 2517. Oyedaea verbesinoides DC. √ · 2521. Hexisea bidentata Lindl. √ . 2523. Peperomia cartagoana Trel. V. 2527. Trichopilia marginata Henfr. ◆ 2528. Peperomia martagonifolia C. DC. ✓ 2530. Lepidopilum Skutchii Bartr. n. sp. type v 2534. Tayloria Moritziana C. M. 2535. Philonotis tenella (C.M.) Besch. ✓ · 2536. Eupatorium macrophyllum L. √ 2542. Dryopteris aspidioides (Willd.) C. Chr. - ✓ ·2555. Eupatorium elatum Steetz \_ / -2561. " platyphyllum Rob. \_ J. 2565. Verbesina turbacensis H.B.K. ✓ . 2566. Eupatorium Thieleanum Klatt J.2567. Brassia Gireoudiana Rchb. f. & Warsc. v 2568. Oncidium Isthmii Schltr. √ 2592. Vanilla Pfaviana Rchb. f. \_/ 2593. Sarcorhachis anomala Trel. , 2608. Gnaphalium attenuatum DC. - / 2610. Alchornea costaricensis Pax & Hoffm.? 2611. Piper opinatum Trel. n. sp. type - √ 2612. ii candelarianum C. DC. - √ · 2614. Trixis radialis (L.) Kuntze √ 2615. Mandevilla hirsuta (A. Rich.) K. Sch. -√.2624. Piper hians Trel. n. sp. type -1.2625. " pseudofimbriulatum Trel. √ 2631. Peperomia Alexandri Trel. n. sp. type

### Corrections to previous list.

- 2229. Reported as Lindsaea horizontalis Hook. is a mixture. The second element, Lindsaea lancea (L.) Bedd., may be called 2229a.
- √ 2368. Malvaviscus arboreus Cav. Previously listed as 2268.
  - ✓ 2586. Smilax panamensis Morong. Previously listed as 2568.
- 1.2605. Nectandra glabrescens Benth. Previously listed as 2615

Dundres 4 34-8  Costa Rica Plants collected by A. F. Skutch.

Mosses identified by E. B. Bartram, Pteriodophyta by William R. Maxon,
Graminae by A. Chase, Orchidaceae by O. Ames, Urticaceae by
E. P. Killip, Catopsis by L. B. Smith, Gilibertia by A. C. Smith,
the remainder by C. V. Morton.

Species new to the flora of Costa Rica are indicated by an \*

2634. Nectandra panamensis Mez 2635. Eleusine indica (L.) Gaertn. 2636. Dioscorea convolvulacea subsp. esurientum Uline ~2637. Marginariopsis Wiesbaurii (Sod.) C. Chr. -2638. Dioscorea borealis Morton n. sp. type 12639. Elaphoglossum sp. 2641. Lantana camara L. 2642. Cornutia grandifolia C. & S. -2643. Kyllinga odorata Vahl 2644. Cyperus diffusus Vahl 2645. caracasanus Kunth √2647. Setaria geniculata (Lam.) Beauv. 2648. Sporobolus Poiretii (R. & S.) Hitchc. 2649. Saracha Rothii (Poir.) Morton ~2650. Nephrolepis pectinata (Willd.) Schott ~2651. Saurauia costaricensis D. Sm. 2654. Burmeistera cyclostigmata D. Sm. -2655. Cassia caudata Standl. /2656. Elaphoglossum sp. ~2658. Belotia macrantha Sprague \* ex char. 2660. Ardisia Skutchii Morton, n. sp. v2661. Calathea insignis Peters 2662. Pescatoria cerina Rchb. f. ~2663. Polypodium serpentinum Christ 2664. Monstera obliqua (Miq.) Walp. √2665. Guarea bullata Radlk. First flowering collection -2666. Frantzia Pittieri (Cogn.) Pitt. ~2667. Polypodium truncatulum Rosenst. ~2668. Nectandra rectinervia Meisn.? 2669. Helosis mexicana Liebm. · 2670. Arrabidaea sp. Perhaps new. ~ 2671. Panicum maximum Jacq. √2672. Cyperus incompletus (Jacq.) Link √2673. Helicteres guazumaefolia HBK \*2676. Diastema exiguum Morton 2677. Callicostella pallida (Hornsch.) Jaeg. ~2679. Dryopteris patula (Sw.) Underw. 2681. Xanthosoma pilosum Koch ~2684. Xiphidium caeruleum Aubl. -2686. Asplenium serratum L.

2688. Calathea macrosepala Schum.

Skutch-2 ~2689. Lithachne pauciflora (Sw.) Beauv. - 2690. Costus Skutchii Morton, n. sp. type · 2691. Richardia scabra L. √2692. Casearia sylvestris Sw. var. vel. sp. nov. √2693. Cestrum Endresii Francey ex char. 2694. Rhacopilopsis trinitensis (C. M.) E. G. Britt & Dix 2695. Rhizogonium spiniforme (Hedw.) Bruch - 2696. Cissampelos grandifolia Tr. & Pl. -2698. Polypodium fraxinifolium Jacq. sens lat. 2701. Struthiopteris ensiformis (Liebm.) Broadh. ~ 2702. Anthericum macrophyllum Baker ex char. 2703. Sematophyllum loxense (Hook.) Mitt. v2705. Gynandropsis speciosa DC. 2707. Cordia ferruginea (Lam.) R. & S. var. 2708. Solamum synantherum Sendtn. 2709. Dioscorea convolvulacea subsp. esurientum Uline 2710. Elaphoglossum piloselloides (Presl) Moore sens lat. 2711. Tetrapteris Schiedeana C. & S. 2713. Pleuropetalum Sprucei (Hook. f.) Standl. 2715. Asplenium obtusifolium var. riparium (Liebm.) 2719. Clusia uvitana Pitt. 2720. Elaphoglossum sp. 2721. Hasseltia floribunda HBK 2722. Perrottetia longistylis Rose vel aff. √2723. Cissus rhombifolia Vahl 2725. Blepharodon mucronatum (Schl.) Done. 2726. Pavonia rosea C. & S. /2727. Inga spectabilis Willd. 2728. Solarum aculeatissimum Jacq. 2730. Utricularia Endresii Rchb. f. 2731. Rynchospora mariusculus Nees robusta Boeckl? small form. V2732. 2734. Panicum parvifolium Lam. 2735. Scleria microcarpa Nees 2736. Cyperus luzulae (L.) Retz. 2738. Monophlegma trinervium (D. Sm.) Piper √2742. Asplenium alatum H. & B. 2743. Chamaedorea pacaya Oerst. 2745. Anoectangium euchloron (Schw.) Mitt. 2746. Doryopteris palmata (Willd.) J. Sm. ~2747. Achimenes candida Lindl. \* First collection since the type. 2748. Gouania lupuloides (L.) Urban 2749. Verbena littoralis HBK 2750. Dorstenia contrajerva L. ~2752. Malaxis Parthoni Morren 2753. Polypodium aneticides Christ ~2755. Mitracarpus hirtus (L.) DC. 2756. Mucuna Holtoni (Ktze) Moldenke 2757. Machaerium confusum Morton sp. nov. type 2758. Banisteria n. sp.? Fruits needed. ~2759. Borreria laevis (Lam.) Griseb. 2760. Polypodium percrassum Baker val aff. 2761. Mittenothemnium diminutivum (Hpe) E. G. Britt. 2762. Pleiostachya pruinosa (Regel) Schum.

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2763. Ornithocephalus Tonduzii Schltr.
  2764. Syrrhopodon Bernoullii C. M.
 2766. Dicranopteris pectinata (Willd.) Underw.
 ~2767. Leiphamos lutea Morton n. sp.
  2768. Burmannia n. sp.
 2769. Burmannia tenella Benth.
                                          vel aff.
 2770. Lophidium elegans (Vahl) Presl
  2771. Catopsis apicroides (C. & S.) Baker
  2772. Rhipidopteris peltata var. foeniculacea (HBK)
 -2773. Lippia reptans HBK
 2774. Borreria laevis (Lam.) Griseb.
 2775xx Costusx sansuineus D. Sm.
 -2776. Dryopteris brachyodus (Kunze) Ktze
 2777. Epidendrum paniculatum R. & P.
 2778. Calathea violacea (Rosc.) Lindl.
 J2781. Dryopteris nigrovenia (Christ) C. Chr.
 2782. Psychotria dispersa Standl.
√2783. Vincetoxicum viridiflorum (Mey.)
2786. Cassia Valerioi (R. & R.) Morton. Second collection known
72787. Solanum triz yeum subsp. chiriquianum Bitt. *
2790. Capsicum macrophyllum (HBK.) Standl.
2792. Eryngium foetidum L.
~2793. Scoparia dulcis L.
2796. Elaphoglossum sp.
2797. Conomorpha peruviana var. rostrata (Hassk.) Mez.
                                                            * Genus
           new to continental North America.
>2798. Gilibertia arborea (L.) March
 2800. Fissidens Garberi Lesq. & James
2801. Hymenophyllum polyanthos Sw.
2805. Posoqueria latifolia (Rudge.) R. & S.
2806. Eugenia sp. Perhaps new.
√2807. Epidendrum pygmaeum Hook.
 2808. Tetrapteris reticulata Small * Fruits needed.
-2809. Cassia spectabilis DC.
2810. Euphorbia hirta L.
2811. Mecardonia procumbens (Mill.) Small
2812. Cissus cardiophylla Standl.
-2813. Ocotea pedalifolia Mez
~2814. Hecistopteris pumila (Spreng.) J. Sm.
2815. Polypodium Alfarii D. Sm.
2817. Oleandra costaricensis Maxon
2818. Polypodium duale Maxon
-2820. Mandevilla hirsuta (Rich.) Schum.
v2821. Ocotea cuneata Mez?
2822. Campylopus porphyreodictyos (C. M.) Mitt.
2823. Rhaphidorrhynchium Lindigii (Hpe) Broth.
2824. Polytrichum antillarum Rich.
2825. Stelis n. sp.
2826. Polypodium blepharodes Maxon
√2827. Utricularia verapazensis Morong
2828. Cordia ferruginea (Lam.) R. & S. var.
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2829. Borreria ocymoides (Burm.) BC. √2830. Polypodium subtile Kunze 2831. Hombersleyi Maxon 2832. rosulatum Christ ex char. 2833. Cissampelos grandifolia Tr. & Pl. 2835. Maranta arundinacea L. 2837. Campelia zanonia (L.) HBK 2838. Athyrocarpus persicariaefolius (DC.) Hemsl. 2839. Drymonia fimbriata Morton, sp. nov. type 2840. Polypodium sphenoides Kunze 2842. Funaria calvescens Schw. 2843. Taxithelium planum (Brit.) Mitt. 2845. Polytaenium lineatum (Sw.) J. Sm. 2847. Zamia pseudoparasitica Yates 2849. Hypopterygium Tamarisci (Sw.) Brid. 2852. Dichorisandra hexandra (Aubl.) Standl. 2853. Begonia lignescens Morton, n. sp. type 2857. Hyptis capitata Jacq. 2858. Hemidiodia ocymifolia (Willd.) Schum. 2859. Kyllinga brevifolia Rottb. ~2860. Eleocharis retroflexa (Poir.) Urban 2861. Borreria ocymoides (Burm.) DC. var.? 2862. Capsicum viscidum Standl. \* ex char. ~2863. Urera elata (Sw.) Griseb. 2864. Panicum boliviense Hack. - 2866. Hasseltia floribunda HBK ~2868. Buettneria catalpaefolia Jacq. ▶2869. Tetrapteris Schiedeana C. & S. 2870. Monocardia violacea Pennell ~2871. Albizzia adinocephala (D. Sm.) B. & R. 2872. Polypodium blepharodes Maxon Omitted from above 2784. Jussiaea peruviana L. aff. /2787. Petastoma patelliferum Miers

## Additions and corrections to previous lists.

-2256. Cissus biformifolia Standl.? ex char. (non <u>C</u>. <u>cardiophylla</u> Standl.) -2388. Cestrum Baenitzii Lingelsh. (non <u>C</u>. <u>laurifolium</u>) -2416. Cestrum nocturnum L. (non <u>C</u>. <u>s'candens</u>) \_2554. Senecio Hoffmannii Klatt. <u>det</u>. J. M. Greenman.

Costa Rica Plants collected by A. F. Skutch Supplementary list of Second Distribution.

Rubiaceae identified by P. C. Standley, Eromeliaceae by L. B. Smith,
Melastomaceae by H. A. Gleason, Polygalaceae and Compositae by S. F.
Blake, Piperaceae by W. Trelease, Musaceae by R. F. Griggs, Aegiphila
by H. Moldenke, Heliotropium by I. Johnston, Compsoneura and Cavendishia
by A. C. Smith, the remainder by V. Morton,
January 1937.

√2640. Psychotria hebeclada DC. New to N. America 2652. Guzmannia Roezli (E. Morr.) Mez. · 2657. Clibadium anceps Greenm. ✓ 2659. Chiococca alba (L.) Hitchc. 2674. Polygala paniculata L. √2675. Peperomia rata Trel. n. sp. type · 2680. Aegiphila panamensis Moldenke 2682. Psychotria pubescens Sw. ✓ 2685. Heliconia tortuosa Griggs 2687. Clidemia fraterna Gleason sp. nov. type ~2697. Psychotria Mortoniana Standl. n. sp. type ✓ 2699. Psychotria costaricensis Polak. 2700. Clidemia dentata D. Don 2706. Erechtites hieracifolia (L.) Raf. 2712. Psychotria dispersa Standl. 2714. Heliconia acuminata L. C. Rich. 2716. Piper papillicarpum Trel. sp. nov. type ~2724. Chaptalia nutans (L.) Polak. 2729. Palicourea costaricensis Benth. 2733. Clibadium surinamense I. 2737. Heliotropium lagoense (Warm.) Gürke 2739. Schistocarpha oppositifclia (Kuntze) Rydb. 2740. Piper anisophyllum var. granulatum Trel. n. var. type √2741. Psychotria macrophylla R. & P. pubescens Sw. 2744 √2751. Erechtites valerianaefolia (Wolf) DC. 2757. Machaerium biovulatum Micheli 2775. Costus formosus Morton n. sp. ~ 2780. Cyperus sp. 2785. Arthrostemma macrodesmum Gleason 2788. Leandra dichotoma (Don) Cogn. 2791. Compsoneura excelsa A. C. Smith n. sp. type 2794. Cosmibuena ovalis Standl. 2795. Coussarea paniculata (Vahl) Standl. 2799. Miconia sylvestris Gleason sp. nov. type

-2802. Cavendishia Skutchii A. C. Smith n. sp. type

Skutch

- 2803. Clidemia ramiflora Gleason n. sp. type
- ·2816. Miconia dorsiloba Gleason n. sp. type
- 2836. Rudgea Skutchii Standl. n. sp. type
- 2846. Piper generalense Trel. n. sp. type
- 2848. Psychotria uliginosa Sw.
- · 2850. Palicourea magrosepala Krause
- 2851. Peperomia defracta Trel. n. sp. type
- -2856. Cosmos caudatus H.B.K.
- √2865. Piper obitu-sericeum Trel. n. sp. type
- ▶2873. Psychotria marginata Sw.
- -2867. Blakea gracilis longifolia Cogn.

## Additions and corrections to previous lists.

- 2169. Hyptis mutabilis (Rich.) Briq. (det. E. Epling)
- 2195. Drymonia marmorata Hook. (not Centrosolenia costaricana)
- 2261. Dioclea guianensis Benth. form
- 2381. Miconia flaviflora Gleason var. emigrans Gleason n. var. type
- -2457. Miconia borealis Gleason
- \_2513. Miconia dolichorrhyncha Naud.
- -2538. Hydrangea diplostemona (D. Sm.) Standl. (not H. Skutchii)
  - 2570. Ipomoea Purpusii House New to Costa Rica
- -2589. Guatteria aeruginosa Standl.
  - 2768. Cymbocarpa refracta Miers (not Burmannia)
  - 2769. Dictyostegia orobanchioides (Hook.) Miers (not Burmannia)

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# Costa Rican plants collected by Alexander F. Skutch (143067)

#### Third Consignment. First report

Pteridophyta identified by William R. Maxon, Gramineae by J. R. Swallen, Acanthaceae by E. C. Leonard, Passiflora by E. P. Killip, Pitcairnia by L. B. Smith, Labiatae in part by Carl Epling, Mosses by E. B. Bartram, Tournefortia by I. M. Johnston, the remainder by C. V. Morton.

2874. Hieronyma oblonga (Tul.) Muell. Arg. Genuine form, new to N. Amer. ·2875. Struthanthus costaricanus Standl.? ·2876. Ipomoea hederacea Jacq. .2877. Dioscorea trifida L. f. ·2878. Teramnus uncinatus (I.) Sw. ·2879. Cassia tora L. · 2880. Cassia stenocarpoides (Britt.) Morton · 2881. Melochia melissaefolia Benth. -2882. Kolobochilus leiorachis Lindau 2883. Pseuderanthemum alatum (Nees) Radlk. 2885. Micranthamnium minusculifolium C. M. · 2887. Trichomanes polypodioides L. 2888. Syrrhopodon flaves cens C. M. , 2890. Ardisia Skutchii Morton · 2891. Alsophila crassifolia Wercklé 2892. Diplazium costaricanum C. Chr. .2893. Commelina longicaulis Jacq. - 11 elegans HBK. . 2894. ·2895. Inga confusa Britt. & Rose ·2896. Calopogonium galactoides (HBK.) Benth. ·2897. Dioclea guianensis Benta. '2898. Salvia costaricensis Oerst. · 2899. Kohleria spicata (HBK.) Hanst. · 2900. Calliandra similis Sprague & Riley '2901. Ruellia jussieuoides Schl. 2903. Ficus costaricana (Liebm.) Miq. - 2904. Cyathula achyranthoides (HBK.) Moq. · 2905. Mimosa invisa Mart. 2906. Odontonema callistachyum (C. & S.) Kuntze .2907. Phyllanthus sp. aff. lathyroides HBK. 2908. Microthamnium reptans (Sw.) Mitt. 2909. Rhacopilum tomentosum (Sw.) Brid. -2910. Stenochlaena latiuscula Maxon ·2911. Tinantia erecta (Jacq.) Schl. var. ·2912. Polypodium blandulum Christ · 2913. Adiantum concinnum H. & B. · 2914. Triumfetta Josephina Polak

·2915. Cyclanthera Tonduzii Cogn. 2916. Maranta arundinacea L.

2918. Hymenophyllum brevistipes Liebm. 2919. Phytolacca rivinoides Kunth & Bouché

- · 2921. Dryopteris curta Christ. Previously known only from type collection. 2922. Entodon Hampeanus C. M. 2923. Tradescantia geniculata Jacq. 2924. Rhacapilum tomentosum (Sw.) Brid. · 2925. Desmodium distortum (Aubl.) · 2926. Pavonia paniculata Cav. · 2927. Castilleia communis Benth. ·2930. Tovaria pendula R. & P. 2931. Physalis angulata L. 2932. Kolobochilus leiorachis Lindau 2933. Mnium rostratum Schrad. 2934. Hyptis vilis Kunth & Bouché · 2935. Tradescantia cumanensis Kunth? · 2936. Loasa triphylla Juss. 2939. Salvia occidentalis Sw. · 2942. Zornia diphylla (L.) Pers. · 2943. Hyptis lantanaefolia Poit. 11 .2944. brachiata Brig. '2945. Desmodium cajanifolia (HBK.) Kuntze · 2946. Aeschynomene brasiliana (Poir.) DC. · 2947. Eleocharis Pittieri Boeckl. · 2948. Hyotis suaveolens Poit. 2950. Callicostella pallida (Hornsch.) Jaeg. ·2951. Clitoria rubiginosa Juss. 2952. Dicranella subinclinata Lor. ·2953. Banisteria obovata Small . 2954. Polypodium crassifolium L. · 2955. Aeschynomene americana L. · 2956. Crotalaria guatemalensis Benth. · 2957. Pithecellobium Standleyi (B. & R.) Morton · 2958. Dryopteris illudens Maxon & Morton 2959. Diplazium velutinum Maxon & Morton, sp. nov. type · 2961. Oleandra costaricensis Maxon 2962. Carludovica leucocarpa Standl.? ·2963. Clusia flava Tr. & Pl. New to North America .2964. Cyathea divergens Kunze ·2965. Rhus juglandifolia HBK. 2966. Asplenium serra L. & F. · 2968. Chelonanthus acutangulus (R. & P.) Gilg · 2969. Vittaria minima (Baker) Benedict · 2970. Elaphoglossum proliferans Maxon & Morton n. sp. type · 2972. Leptochilus Bradeorum Ros. ·2973. Sabicea costaricensis Wernh. .2974. Phyllonoma ruscifolia Willd. · 2975. Hypolepis rigescens (Kunze) Fée 2977. Cissampelos grandifolia Tr. & Pl. 2978. Asplenium falcinellum Maxon 2979. Solanum n. sp. '2980. Cassia n. sp.
- · 2981. Solanum grossularia Bitt.
- ◆2982. Ipomoea sp. nov.
- · 2983. Callisia monandra (Sw.) Schult.

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· 2984. Ipomoea sp. nov.
· 2985. Hyotis mutabilis (Rich.) Brig.
'2986. Cleome pilosa Benth.
· 2987. Solanum incomptum Bitt.
· 2988. Begonia involucrata Liebm.
· 2990. Phaseolus formosus HBK. New to Costa Rica
.2992. Drymaria cordata Willd.
· 2994. Asolenium oraemorsum Sw.
· 2995. Sisyrinchium micranthum Cav.
·2996. Hemichlaena fruticosa Benth.
                                     New to Costa Rica?
·2998. Centrosema pubescens Benth.
-2999. Vigna vexillata (L.) Rich.
· 3000. Machaerium Seemannii Benth.
 3001. Octoblepharum albidum Hedw.
·3003. Tradescantia commelinoides R. & S.
.3004. Stenandrium n. sp. (Leonard mss.) type
.3005. Phaseolus leucanthus Piper
                                   New to Costa Rica
· 3006. Dorstenia choconiana Wats.
 3007. Besleria chiapensis Brandeg.
· 3008. Begonia squamosa C. DC.
 3009. Microthamnium minusculifolium C. M.
.3010. Athyrium Bradeorum (Ros.) Maxon & Morton
·3011. Hyptis pectinata (L.) Poit.
3012. Justicia n. sp. (Leonard Mss.) type
· 3014. Nectandra reticulata (R. & P.) Mezz
.3015. Polypodium Hombersleyi Maxon
 3018. Polybotrya osmundacea H. & B.
, 3019. Tetrapteris discolor (Mey.) DC.
· 3021. Dioscorea lepida Morton
3023. Lepidopilum cubense Sull.
· 3026. Sida savannarum Schum.
· 3028. Triumfetta lappula L.
.3030. Asclepias curassavica L.
· 3031 Dennstaedtia adiantoides (H. & B.) Moore
 3032. Alloplectus elegantissimus Morton, n. sp. type
 3033. Spathiphyllum Friedrichsthalii Schott
· 3034. Drymaria villosa C. & S.
. 3038. Asplenium bissectum Sw.
· 3042. Trichomanes rigidum Sw.
 3043. Rhipidopteris flabellata (H. & B.) Fée
.3048. Psilogramme congesta (Christ) Maxon
·3049. Eleocharis Pittieri Boeckl.
·3050. Paesia anfractuosa (Christ) C. Chr.
 3051. Metzlerella longiseta (Hook.) Par.
 3052. Sphagnum meridense (Hampe) C. M.
·3053. Pogonatum robustum Mitt.
· 3054. Polypodium asplenifolium L. (A narrow form)
 3056. Asplenium radicans L. var. cyrtopteron (Kunze)
.3057. Lycopodium complanatum L. var.
,3058. Cupania fulvida Ir. & Pl.?
'3059. Cuphea utriculosa Koehne
· 3060. Polypodium fallax Cham. & Schl. (syn. P. margaritiferum Christ)
 3061. Davilla Kunthii St. Hil.
· 3062. Nectandra sanguinea Rottb.
.3063. Jacquemontia menispermoides Choisy
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3064. Hyptis recurvata Poit.

'3064. Hyptis recurvata Poit. 3065. Panicum Rudgei.R. &.S. ·3066. Hyptis pulegioides Pohl 3067. Marsypianthes Chamaedrys (Vahl) Kuntze ·3068. Eragrostis maypurensis (HBK.) Steud. ·3069. Andropogon brevifolius Sw. ' 3070. Chelonanthus alatus (Aubl.) Standl. -3071. Crotalaria pterocaulon Desv. H 3072. sagittalis L. · 3073. Orthoclada Laxa (Rich.) Beauv. · 3074. Calopogonium mucunoides Desv. · 3076. Anthurium obtusilobum Schott · 3077. Trichomanes ludovicinum Rosenst. Galeottii Fourn. (A single immature plant) .3078. 11 . 3079. Ankersii Parker ·3080. Xylosma intermedia (Tr. & Pl.) Griseb. . 3081. Blechnum laxiflorum Juss. 3082. Tetrapteris Schiedeana C. & S. · 3083. Buettneria catalpaefolia Jacq. New to N. America ·3084. Leptochilus serratifolius (Mert.) C. Chr. . 3085. Mollinedia Pinchotiana Perk. · 3086. Phaseolus pilosus HBK. New to Costa Rica. 3087. Centrosema pubescens Benth. -3088. Scutellaria glabra Leonard · 3089. Sanicula liberta C. & S. · 3090. Dicliptera Ehrenbergii Lindau · 3091. Chusquea virgata Hack. · 3092. Trichilia oaxacana Blake? New to Costa Rica · 3093. Plantago hirtella HBK. 3095. Sematophyllum loxense (Hook.) Mitt. 13096. Desmodium campyloclados Hemsl. · 3097. Croton draco var. rhombifolius Muell. Arg. · 3099. Abutilon discussum Schl. 3100. Tournefortia glabra L. · 3102. Lamoureuxia lanceolata Benth. ·3103. Stemodia peduncularis Benth. 3105. Pitcairnia heterophylla (Lindl.) Beer · 3107. Serjania rhombea Radlk. · 3108. Arundinella Deppeana Nees ·3110. Hibiscus bifurcatus Cav. 3113. Dryopteris onusta Maxon & Morton n. sp. type

Addition to previous lists.

· 2758. Banisteria obovata Small

·3115. Passiflora biflora Lam.

Costa Rican Plants, collected by A. F. Skutch
Third Consignment; Second Report

Melastomaceae identified by H. A. Gleason, Compositae by S. F. Blake,
Rubiaceae by P. C. Standley, Piperaceae by W. Trelease, Orchidaceae
by C. Schweinfurth, Cavendishia by A. C. Smith, Myristicaceae by A. C.
Smith, Verbenaceae by H. Moldenke, the remainder by C. V. Morton.
July, 1937

2884. Tagetes filifolia Lag. 2886. Miconia flaviflora var. emigrans Gl. 2889. Jaegeria hirta (Lag.) Less. 2902. Manettia stenophylla D. Sm. 2917. Psychotria crebrinervia Standl. 2920. Piper nemori-marginis Trel. n. sp. type 2928. Habenaria monorrhiza Rchb. f. 2929. Tournefortia hirsutissima L. 2937. Bidens squarrosa H. B.K. 2938. Piper pustulicaule Trel. n. sp. type 2940. Monochaetum rivulare Naud. 2949. Bidens cynapiifolia H.B.K. 2967. Piper uniauriculatum Trel. n. sp. type 2971. Piper deductum Trel. n. sp. type 2989. Conostegia Pittieri Cogn. 2991. Cavendishia confertiflora A. C. Smith n. sp. type 2993. Piper subdurum Trel. n. sp. type 2997. Baccharis splendens Heering 3013. Psychotria macrophylla R. & P. 3016. Miconia sp. 3017. Eupatorium sp. 3022. Peperomia tecticola Trel.

3025. Topobea Durandiana Cogn. 3027. Pseudelephantopus spicatus (Juss.) Rohr. 3029. Elephantopus hypomalacus Blake

3036. Dialyanthera otoba (H. & B.) Warb.

3039. Cephaelis axillaris Sw.

3040. Symbolanthus mulcherrimus Gilg

3041. Eupatorium sp.

3044. Peperomia lati-ovata Trel.

3045. Eupatorium sp.

3047. Peperomia sphagnicola Trel. n. sp. type

3055. Coussarea paniculata (Vahl) Standl.

3075. Piper longipetiolatum Trel.

3094. Lantana hispida H.B.K.

3098. Citharexylum Donnell-Smithii Greenm.

3101. Leandra costaricensis Cogn.

3104. Piper pseudolanceaefolium Trel.

3109. Adelobotrys adscendens (Sw.) Triana

3111. Piper sublinest um Trel.

3112. Cephaelis Pittieri Krause

3114. Miconia Killipii Gl. First record from N. America.

Addition to previous lists

3

Stor let.

Costa Rican plants collected by A. F. Skutch Fourth Consignment, 1st report delit 38

Pteridophyta identified by William R. Maxon, Gramineae by Agnes Chase, Acanthaceae by E. C. Leonard, the remainder by C. V. Morton, U. S. National Museum, December 1937

not form

√3117. Persea caerulea Mez 3118. Virola sebifera Aubl. 3120. Cyperus niger R. & P. √3121. Sibthorpia pichinchensis H.B.K. 13122. Hyptis capitata Jacq. /3123. Solanum evolvulifolium Greenm. √3125. Phyllanthus lathyroides H.B.K. 3127. Asplenium auritum Sw. var. 3129. Besleria triflora (Oerst.) Hanst. √3131. Siparuna Tonduziana Perk. √3132. Rhipidopteris peltata (Sw.) Schott 3133. Asplenium conquisitum Underw. & Maxon ✓3135. Trichomanes radicans var. Kunzeanum (Hook.) Hieron. √3138. Ichnanthus nemorosus (Sw.) Doell. √3139. Polypodium sphenodes Kunze 3140. Asplenium radicans L. 3145. Isachne arundinacea (Sw.) Griseb. ,3146. Begonia estrellensis C. DC. ✓ 3148. Lasiacis divaricata (L.) Hitchc. ✓3149. Struthanthus marginatus (Desr.) Blume 3150. Sanicula liberta C. & S. \$156. Polypodium lycopodioides var. salicinum (Wikstr.) √3159. Solamum grossularia Bitt. √3160. Habracanthus sylvaticus Nees √3162. Rhynchospora Schiedeana Kunth √3164. Lobelia urticaefolia Wimm. √3166. Solanum trizygum Bitt. **3167.** ciliatum Lam. √3168. Tropaeolum bimaculatum Kl. √3173. Hymenophyllum Lehmannii Hieron. √3174. Siparuna grisea Perk.? 3175. Cordia ferruginea R. & P. ¥3177. Solanum phaseoloides Polak. 3178. Alternanthera microcephala (Moq.) Standl. √3179. Capsicum n. sp.? √3187. Ichnanthus nemorosus (Sw.) Doell. 2188. Saracha procumbens (Cav.) R. & P. 3189. Elaphoglossum eximium (Mett.) Christ /3192. Viola stipularis Sw. √3193. Alchemilla sibbaldiifolia var. Tonduzii (Damm.) Perry ✓ 3194. Cuphea carthaginensis (Jacq.) Macbr.

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√3195. Cardamine flaccida C. & S.
3196. Hydrocotyle umbellata L.
              leucocephala C. & S.
           - 11
√3197.
 3199. Rubus Alexandri Morton n. sp. type
3199 1/2. Rubus Skutchii Morton, n. sp. type
 3200. Cephaelis elata Sw.
√ 3203. Asplenium plumbeum Christ?
/3207. Hypericum uliginosum H.B.K.
3208. Torenia Thomarsii (C. & S.) Kuntze
3209. Sisyrinchium micranthum Cav.
3212. Polypodium duale Maxon
√3215. Columnea microcalyx Hanst.
3220. Polygonum punctatum Ell.
√3222. Solamum hispidum Pers.
√3225. Fuchsia minutiflora Hemsl.
√3229. Polypodium induens Maxon
  3232. Lycopodium elegantulum Maxon n. sp. type
3233. Nertera depressa Banks
√3236. Polybotrya sp. nov.?
√3241. Psittacanthus americanus (L.) Mart.
√3243. Merinthopodium neuranthum (Hemsl.) D. Sm.
/3248. Ranunculus flagelliformis Smith
√ 3249. Ranunculus repens L.
 √3250. Vismia guianensis (Aubl.) Pers.
√3252. Cissus Martiniana Woods. & Seib.
√3253. Myrcia costaricensis Berg
3256. Solanum efr. Edwardsii Standle
 √3257. Browallia americana L.
/3262. Hemitelia arachnoidea (Underw.) Maxon
  3263. Scutellaria costaricana Wendl.
~ 3264. Hydrocotyle mexicana C. & R.
√ 3266. Malvaviscus sp.
 /3267. Aphelandra repanda Nees
 3268. Trichomanes montanum Hook.
 √3271. Besleria princeps Hanst.
 3272. Trichomanes capillaceum L.
 √3274. Dryopteris atrogrisea C. Chr.
 V3275. Diplazium urticaefolium Christ
  3276. Dryopteris equitans (Christ) C. Chr.
 √3278. Dryopteris equitans (Christ) C. Chr.
 3280. Solanum triste Jacq.?
 √3285. Asplenium bissectum Sw.
√3286. Solanum nudum H.B.K.
 √3287. Clusia palmana Standl. ex char.
 3288. Cissus biformifolia Standl.
 √3289. Oreopanax Oerstedianum Mærch.
 √3295. Beloperone macrantha (Oerst.) Benth.
 ₩3298. Polypodium sectifrons Kunze
 √3299. Weinmannia pinnata L.
 √3302. Prunus annularis Koehne
  3307. Saurauia Pittieri D. Sm.
 ✓ 3309. Jacobinia aurea Hemsl.
 73311. Solanum (Lycianthes) multiflorum (Bitt.)
 3313. Capsicum macrophyllum (H.B.K.) Standl.?
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Skutch-3 /3315. Inga luculenta Morton, n. sp. 3321. Lycopodium clavatum L. var. √3322. Cochlidium rostratum (Hook.) Maxon √3324. Schlegelia sp. 3325. Spathacanthus Hoffmanni Lindau \$326. Razisea spicata Oerst. √3329. Razisea spicata Oerst. √3331. Didymochlaena truncatula (Sw.) J. Sm. √3334. Polypodium fraxinifolium Jacq. 3335. Capsicum n. sp.? 3336. Tradescantia commelinoides R. & S. 3338. Pleuropetalum Sprucei (Hook. 'f.) Standl. 3339. Hydrangea epiphytica Morton, n. sp. √,3340. Marcgravia rectiflora Tr. & Pl. √ 3341. Muhlenbergia tamnifolia (H.B.K.) Meisn. var. ✓3342. Hydrangea epiphytica Morton, sp. nov 3343. Solamum Connell-Smithii Coult. 3344. Cleome pilosa var. √ 3345. Drymaria villosa C. & S. ✓ 3346. Heliocarpus rudis E. E. Wats. 3347. Stemodia peduncularis Benth. √3348. Ilex lamprophylla Standl. 3351. Markea leucantha D. Sm. √ 3355. Markea n. sp.? √ 3356. Prunella vulgaris L. √3360. Drymonia scandens Morton, sp. nov. type √3362. Gilibertia arborea (L.) March. var. √3363. Columnea Warscewicziana Kl. & Hanst. 3366. Struthiopteris Werckleana (Christ) Broadh. 3367. Polypodium falcoideum Kuhn √3368. Loasa triphylla Juss. /3371. Selaginella estrellensis Hieron. /3374. Triumfetta semitriloba Jacq. ✓3376. Polypodium jungermannioides Kl. II 3379. fucoides Christ √3380. Polypodium ursipes Moritz ✓ 3381. Gaiodendron poasense D. Sm. 3383. Polypodium leucosticton Kunze var. 3384. Sapium pachystachys Schum. & Pitt. Additions and corrections to previous lists 2256. Cissus brevipes Morton & Standl. n. sp. type (in Standl. Fl. Costa Rica 2: 653. 1937). Not C. biformifolia. 2381. Skutchia caudata Pax & Hoffm. = Trophis chorizantha Standl. 2609. Mollinedia discrepans Morton, n. sp. (not M. Pinchotiana) 11 11 11 - 11 2628. 11 2806. Eugenia Skutchii Morton & Standl. n. sp. type (in Standl.)

Fl. Costa Rica 2: 774. 1937

2386. Skutchia caudata = Trophis chorizantha Standl.

2976. Maxillaria variabilis Batem. det. C. Schweinfurth

# Skutch plants. Determinations lacking at the Gray Herbarium

M. R. M. APR 8 - 1938

V	2884	Tereter	filifolia	Lag	det.	Blake
¥	たつつ"	l'aget es	BITOILL	128.	our .	0 34 44

- ~2886 Miconia flaviflora var. emigrans Gl. dut. Gleason
- ·2889 Jaegeria hirta (Tag.) Less. der. Bloke
- √2902 Manettia stenophylla D. Sm. dat. Standley
- ~2917 Psychotria crebrinervia Standl. des. Standley
- 2920 Fip nemori-marginis Trel. n. sp. type det. Trelease
- ~2028 Habenaria monorrhiza Rchb. J. det. Schwein furth
- 12929 Tournefortia hirsutissima L. der. Kulligi
- v2937 Bidens squarrosa H.B.K. dur. Bleke
- 12938 Pipy pustulicable Trel. n. sp. type del. Trulean
- 12940 Monochaetum rivulare Naud. des. gleason
- v2949 Biden's cynapiifolia H.B.K. dus. Bloke
- 2967 Pipy uniauriculatum Trel. n. sp. type des. Tockense
- 2971 Pipy deductum Trel. n. sp. type det. Treleane
- 12989 Conostegia Pitticri Cogn. del. Gleann
- √2991 Cavendishia confertiflora A. C. Sm. n. sp. type del. a. C. Smith
- √2993 Pipg subdurum Trel. n. sp. type det. Trelease
- 1 2994 Asplenium praemorsum Sw. det. Maxon
- v 2997 Baccharis splendens Heering der. Bleke

del Stande VEOLE Tradescentie correlinaides R. & S. Psychotria manophylla R. P.

- v 3016 Borstenia chaconiene Wats. Miconia sp. det. Glecom
- √3017 Eupatorium sp. det. Bleke
- V3022 Peperomia tecticola Trel. det. 7 release
- VEO25 Topobea Durandiana Cogn. des. gleason
- VEO27 Fseudelephantopus spicatus (Juss.) Rohr. a.s. Bleke
- v3029 Flephantopus hypomalacus Blake Clar. Blecke
- 2036 Dialyanthya otoba (H. & B.) Warb. des. a.C. Smith
- v 2039 Cephaelis axillaris Sw. Ket. Standley
- 12040 Symbolanthus pulcherrimus Gilg. det. Montin
- √3041 Eupatorium sp. del. Blake

( over)

73044 Peperomia lati-ovata Trel. del. Trelean
73045 Eupatorium sp. des. Blake
73047 Peperomia sphaenicola Trel. n. sp. type del. Trelean
73055 Conssarea paniculata. (Vahl) Standl. des. Standky
73075 Pity loneipetiolatum Trel. des. Trelean
73094 Lantana hispida H.B.R. des. moddente
73098 Citharexylum Donnell-Smithii Greenm. des. Moddente
73091 Leandra costaricensis Cogn. des. Gleann
73101 Leandra costaricensis Cogn. des. Treleane
73104 Pity pseudolanceaefolium Trel. des. Treleane
73105 Adelobotrys adscendens (Sw.) Triana des. Gleann
73111 Pity sublineatum Trel. des. Treleane
73112 Cephaelis Pittieri Krause des. Standky
73114 Miconia Killipii Gl. First record from N. Amer. des. Gleann

√3116 Machaerium biovulatum Micheli det. Montin

Mingaper of The This with Arm. Arb.?

7/1/38 Oran Costa Rican pl



Costa Rican plants collected by Alexander F. Skutch

4th consignment, second report

Compositae identified by S. F. Blake; Orchidaceae by Oakes Ames and C. Schweinfurth; Rubiaceae by P. C. Standley; Piperaceae by William Trelease; Melastomaceae by H. A. Gleason; mosses by E. B. Bartram; Urticaceae by E. P. Killip; and Selaginella by A. H. G. Alston.

3124. Alomia microcarpa (Benth.) Rob.

3126. Stelis Skutchii Ames n. sp. (Type)

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3128. Eupatorium sp.

3130. Palicourea macrosepala Krause

3134. Pleurothallis ruscifolia R. Br. 3136. Hoffmannia longipetiolata Polak.?

3137. Psychotria graciliflora Benth.

3142. Piper pseudolanceaefolium Trel.

3143. Pilea parietaria (L.) Blume

3144. Centradenia inaequilateralis G. Don

3151. Sarcorhachis naranjoana Trel.

3152. Falicourea lasiorrhachis Oerst.

3153. Gonzalagunia panamensis (Cav.) Schum.

3154. Clidemia Mortoniana Standl. n. sp. (Type)

3155. Eupatorium Billbergianum Beurl.

3170. Pleurothallis costaricensis Rolfe

3171. Masdevallia nidifica Rchb. f.

3172. Macromitrium Tonduzii Ren. & Card.

3176. Mikania cristata Rob.

3180. Peperomia tenellaeformis Trel.

2181. Microthamnium Lehmannii Besch. 3182. Mostly Hepaticae mixed with Microthamnium reptans (Sw.) Mitt.

3183. Sematophyllum loxense (Hook.) Mitt.

3184. " " " " " " " 3185. Thamniopsis pendula (Hook.) Fleisch.

3186. Pilea auriculata Liebm.

3190. Selaginella porphyrospora A. Br.

3191. Peperomia varablancana Trel. n. sp. (Type)

3201. Microthamnium Langsdorffii (Hook.) Nitt.

3202. Ravnia triflora Oerst.

3204. Bupatorium Pittieri Klatt

3205. Piper vara-blancanum Trel. n. sp. (Type)

3206. Rondeletia buddleoides Benth.

3210. Borreria ocimoides (Burm.) DC.

3213. Vittaria sp.

3214. Hoffmannia leucocarpa Standl.

3221. Eupatorium anisochromum Klatt

3223. Guettarda crispiflora Vahl

3224. Conostegia rhodopetala D. Sm.

3226. Epidendrum exasperatum Rchb. f. 3227. Eupatroium arthrodes Rob. 3237. Rhaphidorrhynchium Lindigii (Hampe) Brotherus 3238. Hookeriopsis variabilis (Hornsch.) Jaeg. 3239. Galinsoga urticaefolia (HBK.) Benth. (form) 3242. Eupatorium parasiticum Klatt (ex char.) 3251. Ornithidium fulgens Rchb. f. 3253 1/2 Telipogon Endresianus Kraenzl. 3260. Clibadium anceps Greenm. 3261. Xerococcus congestus Oerst. 3265. Epidendrum platystigma Rchb. f. 3269. Psychotria costaricensis Polak. 3273. Miconia incurva Gleason n. sp. (Type) 3282. Psychotria sylvivaga Standl.? 3284. Centronia phlomoides Triana 3290. Pleurothallis lanceola Spr. New to C. Amer. 3292. Polytrichum antillarum Rich. 3293. Rhaphidorrhynchium Lindigii (Hampe) Brotherus 3294. Polytrichum antillarum Rich. 3300. Palicourea subrobra Polak. 3303. Spilanthes americana f. parvifolia (Benth.) A. H. Moore 3304. Manettia flexilis Brandeg. 3305. Monnina sylvatica S. & C. det. Blake 3310. Peperomia substriata C. DC. 3312. Eupatorium Pittieri Klatt 3318. Blakea sp. 3319. Leandra melanodesma (Naud.) Cogn. 3320. Clibadium leiocarpum var. strigosum Blake 3323. Epidendrum anoglossum Schltr. 3330. Psychotria sarapiquensis Standl. n. sp. (Type) 3349. Phenax rugosus (Poir.) Wedd. 3350. Monochaetum rivulare Naud. 3352. Bidens squarrosa HBK. 3353. Maxillaria microphyton Schltr. 3354. Camaridium Biolleyi Schltr. 3357. Fuchsia arborescens Sims det. Standl. 3359. Rondeletia Torresii Standl. 3361. Eupatorium sexangulare (Klatt.) Rob. 3365. Piper carilloanum C. DC. 3369. Peperomia miscitecla Trel. n. sp. 3370. Epidendrum mirabile Ames & Schweinf. 3375. Selaginella porphyrospora A. Br. 3377. Epidendrum muscicola Schltr. 3378. Stelis pardipes Rchb. f. 3385. Pleurothallis monstrabile Ames 3386. Oncidium bracteatum Rchb. f.

# Additions and corrections to previous lists

2297.	Dicliptera pallida Leonard (not $\underline{D}$ , acuminata)
2574.	Blechum costaricense Gerst. (syn. B. ruellioides Leonard ined.)
2649.	Saracha procumbens (Cav.) R. & P. (syn. S. Rothii Morton ined.)
2825.	Stelis planipetala Ames, n. sp. Type
2882.	Razisea spicata Oerst. (not Kolobochilus leiorachis)
	det. Leonard
2883.	Pseuderanthemum cuspidatum (Nees) Radlk. (not P. alatum)
	det. Leonard
2906.	Odontonema strictum (Nees.) Ktze. (not O. callistachtum)
0.000	det. Leonard
2932.	Razisea spicata Oerst. (not Kolobochilus leiorachis)
7004	det. Leonard
3004.	Aphelandra Tonduzii Leonard (not Stenandrium)
5007.	Besleria laxiflora Benth. (syn. B. chiapensis Brandeg.)
7076	det. Leonard
SOMI	Miconia prasina (Sw.) DC. det. Gleason
OUMT.	Blechum costaricense Oerst. (not B. laxiflorum Juss.)
7000	det. Leonard
5090.	Dicliptera Skutchii Leonard n. sp. Type (not <u>D</u> . <u>Ehrenbergii</u> )
3205	Poikilacanthus macranthus Lindau(not beloperone macrantha (Oerst.) en
0,000	
	$^{B}$ enth.)

- no = Det. entered on huse nos at AA 14. R. M. Si - 1 1 19 12

Costa Rican plants collected by A. F. Skutch 5th, 6th, and 7th consignments, First Report

Pteridophyta identified by William R. Maxon; Compositae by S. F. Blake, Acanthaceae by E. C. Leonard, Passiflora and Urticaceae by E. P. Killip, Apocynaceae by R. E. Woodson, Verbenaceae by H. N. Moldenke, Ericaceae and Araliaceae by A. C. Smith, Bromeliaceae by L. B. Smith, Labiatae by C. Epling, Melastomaceae by H. A. Gleason, Piperaceae by W. Trelease, Desmodium by B. Schubert, the remainder by C. V. Morton, U. S. National Museum, September 1939. Orchidaceae by C. S. Schweinfurth.

\_\_\_3391. Miconia theaezans (Bonpl.) Cogn. \_\_3392. Drymonia rubra Morton -3393xxHydxangea \_3394. Miconia cremadena Gleason, n. sp. 3396. Columnea lepidocaula Hanst. 3397. Paspalum candidum (H. & B.) Kunth 3401. Equisetum bogotense HBK. \_3403. Hydrocotyle pusilla A. Rich. 3404. Glockeria ventricosa Donn. Smith. 3405. Begonia alnifolia A. DC. 3406. Cupania grandiflora Morton 3407. Campanea Oerstedii Kl. 3409. Epidendrum Laucheanum Rolfe ex Bonhof 3410. Satyria Warscewiczii Kl. 3411. Camaridium nutantiflorum Schltr. 3412. Centropogon solanifolius Benth. — 3414. Begonia sp. 3418. Cranichis diphylla Sw. (syn. C. guatemalensis Schltr.) 3419. Epidendrum Endresii Rchb. f. 3420. Piper nervo-excurrens Trel., n. sp. type \_\_ 3421. Polypodium sp. nov. \_\_ 3422. \_ 3423. Asplenium harpeodes Kunze - 3424. Dryopteris Hemsleyana (Baker) C. Chr. 3425. Peperomia lateriflora Trel. 3426. Dryopteris denticulata (Sw.) Kuntze (small form) 3427. Cheiroglossa palmata (L.) Presl 3432. Sambucus oreopola Donn. Sm. \_\_3433. Geranium mexicanum HBK. \_3434. Zinowiewia costaricensis Lundell 5436. Sphyrospermum cordifolium Benth. -3437. Disterigma Humboldtii (Kl.) Ndzu. 3438. Peperomia medio-montis Trel., n. sp. type 3441. Norantea subsessilis Donn. Sm. 3448. Justicia Valerii Leonard 3449. Ichnanthus pallens (Sw.) Munro 3450. Begonia glabra Aubl. 63451. Columnea Warszewicziana (Kl.) Hanst.

3452. Salvia alvajaca Oerst.

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3453. Elleanthus glaucophyllus Schltr.
3454. Peperomia recepta Trel., n. sp. type
 3457. Justicia costaricana Leonard
  3458. Columnea purpurata Hanst.
__3459. Polytaenium Dussianum Bened. aff.
  3460. Ardisia compressa HBK.
   3461. Pleurothallis grandis Rolfe
 3463. Trichomanes polypodioides L.
3465. Asplenium harpeodes Kunze
 3466. Columnea verecunda Morton, n. sp. type
 ~3468. Polypodium plebeium Schl. & Cham.
J3469.
             -11
                   myriolepis Christ
 3471. Paspalum candidum (H, & B.) Kunth
3472. Oxalis corniculata L.
   3474. Stachys costaricensis Briq.
3477. Solanum roblense Bitter
3479. Eurya Seemanniana Pittier
__3480. Axinaea costaricensis Cogn.
3481. Utricularia verapazensis Morong
3482. Viburnum venustum Morton
3434. Begonia alnifolia A. DC.
3485. Piper decurrens C. DC.
3489. Begonia alnifolia A. DC.
3492. Centropogon nutans Pl. & Oerst.
3495. Panicum boliviense Hack.
3497. Begonia Valerii Standl.
                  11
             11
 3498.
  3499. Hyptis mutabilis (Rich.) Briq.
 73501. Diplazium Werckleanum Christ
 3504. Saurauia pseudorubiformis Busc.
   3509. Maxillaria Brenesii Schltr.
  3511. Billia columbiana Pl. & Lind.
   3513. Polypodium montigenum Maxon
   3514. Dicranopteris bifida (Willd.) Maxon, sens. lat.
                      costaricensis Underw.
   3515.
   3517. Odontosoria gymnogrammoides Christ
   3519. Paesia anfractuosa (Christ) C. Chr.
   3520. Dicranopteris retroflexa (Christ) Underw.
   3522. Trichomanes eximium Kunze
   3523. Epidendrum pygmaeum Hook.
   3525.
                    incomptum Rchb. f.
   3526.
  3528. Miconia Pittieri Cogn.
  3529. " glaberrima (Schl.) Naud.
 3530. Alloplectus ichthyoderma Hanst.
   3531. Oxalis vulcanicola Donn. Smith
   3533. Calceolaria mexicana Benth.
 3534. Piper irazuanum C. DC.
   3535. Besleria barbensis Hanst.
  3536. Dicliptera iopus Lindau
   3537. Trichomanes radicans var. Kunzeanum (Hook.) Hieron.
 __3538. Ardisia glanduloso-marginata Verst.
   3539. Polypodium angustifolium Sw.
   3540. Asplenium conquisitum Und. & Maxon
   3541. Valeriana Candolleana Gardn.
   3543. Salvia compacta Kuntze
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3545. Castilleia communis Benth.
  -3546. Guarea Tonduzii C. DC. (First flowering material collected)
   3547. Kohleria spicata (HBK.) Oerst.
   3548. Calceolaria mexicana Benth.
 -3549. Mauria biringo Tull.
   3551. Epidendrum exile Ames
 3552. Capsicum Standleyanum Morton
3553. Drymonia lanceolata (Hanst.) Morton
 _3554. Columnea Oerstediana Hanst.
3558. Guzmania nicaraguensis Mez. and C. F. Baker
   3560. Dryopteris chiriquana C. Chr.
            - 11
                   patula (Sw.) Underw.
   3566. Hydrocotyle leucodephala C. & S.
 6567. Sida rhombifolia L.
   3572. Anagallis pumila Swartz
__3574. Capsicum consanguineum Morton, n. sp.
   3575. Dryopteris atrovirens C. Chr.
   3576. Hymenophyllum asplenioides Sw.
3577. Glockeria stricta Leonard
   3578. Pteris altissima Poir.
∕3579. Besleria formosa Morton
   3580. Solanum longiconicum Bitter.
3581. Miconia theae ans (Bonpl.) Cogn.
__3582. Cestrum Warscewiczii Klotzsch
3583. Didymopanax Pittieri March.
   3586. Vittaria Gardneriana Fée
__3588. Euonymus costaricensis Standl.
3590. Piper strigillimum Trel., n. sp. type
3594. Piper stylamentum Trel., n. sp. type
____3596. Capsicum Standleyanum Morton, n. sp.
   3600. Hypolepis nuda Mett.
   3601. Dryopteris atrogrisea C. Chr.
   3604. Struthiopteris Maxonii Broadh.
 √3605. Piper oblique-ttruncatum Trel., n. sp.
5608. Alloplectus tetragonus (Oerst.) Hanst.
✓3609. Piper glabratinerve Trel., n. sp. type
   3612. Peperomia aperte-ramosa Trel., n. sp. type
3614. Solanum trizygum Bitter
 3616. Microtropis occidentalis Loes.
   3617. Drymonia conchocalyx Hanst.
 3618. Capsicum S andleyanum Morton
  3620. Markea leucantha Donn. Sm.
 5621. Guarea rhopalocarpa Radlk. (1st flowering material collected)
   3623. Dioscorea lepida Morton
   3624. Asplenium sp.
3625. Piper rubidispicum Trel., n. sp. type
3626. Cavendishia quereme (HBK.) B. & H.
   3628. Peperomia Tonduzii C. DC.
   3629.
                  duplicornis Trel., n. sp. type
   3630.
           - 11
                  barba-poasana Trel., n. sp. type
 -3631. Psammisia ramiflora Kl.
   3633. Adiantum tebraphyllum H. & B.
   3634. Asplenium Solmsii Baker
3635. Piper placens Trel., n. sp. type
   3636. Pteris sp. nov.
   3638. Polypodium trifurcatum L.
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3641. Pennisetum bambusiforme (Fourn.) Hemsl.
  3643. Pleurothallis compacta Ames & Schweinf.
  3647. Axonopus compressus (Sw.) Beauv.
  3648. Sporobolus Poiretii (R. & S.) Hitchc.
  3649. Peperomia triplamenta Trel., n. sp.
  3653. Melinis minutiflora Beauv.
3654. Lozania montana S, andl.
  3656. Histiopteris incisa (Thunb.) J. Sm.
  3659. Isachne arundinacea (Sw.) Griseb.
3660. Piper sulcinervosum Trel.
  3661. Peperomia pachyclada Trel., n. sp. type
  3663. Pennisetum clandestinum Chiov.
__3664. Burmeistera cyclostigmata D. Sm.
  3666. Pleurothallis lancilabris var. oxyglossa (Schltr.) Schweinf.
  3668. Lepanthes blepharistes Rchb. f.
  3670. Ipomoea tiliacea (Willd.) Choisy
                  -11
            11
 3672.
3673. Piper callisiaecaule Trel., n. sp. type
  3674. Lasiacis Standleyi Hitchc.
3675. Peperomia martagonifolia C. DC.
_3676. Piper difficile Trel., n. sp., type
5677. Lycopodium tubulosum Maxon
             - 11
                  linifolium L.
  3677 1/2.
3678. Peperomia cillifera Trel.
  3680 . Lasiacis Standleyi Hitchc.
  3682. Stenochlaena Maxonii Und.?
3683. Meliosma glabrata (Liebm.) Urban
3684. Struthiopteris Maxonii Broadh.
3686. Peperomia dispansa Trel., n. sp. type
  3691. Asplenium radicans L. var.
3693. Struthiopteris polypodioides (Sw.) Trev.
 3695. Lycopodium reflexum Lam.
3697. Tournefortia glabra L.
   3698. Lycopodium callitrichaefolium Mett.
3701. Solenophora calycosa Donn. Sm.
3707. Cavendishia complectens Hemsl.
 3708. Clethra vulcanicola Standl. New to Costa Rica
__3709. Hasseltia floribunda HBK.
3710. Thibaudia costaricensis Hoer.
3712. Solanum nigrum L.
 3714. Trichomanes lucens Sw.
  3715. Stelis despectans Schltr.
 3716. Cestrum Endresii Francey ?
   3717. Masdevalli triaristella Rchb. f.
__3719. Polypodium limula Christ
   3722. Struthiopteris polypodioides (Sw.) Trev.
 2724. Hieronyma oblonga (Tul.) Muell. Arg.
 3726. Piper poaso-barbanum Trel., n. sp., type
 3727. Picramnia carpinterae Polak
 3729. Ilex lamprophylla Standl.?
 /3731. Lycopodium sp. nov.
 3732. Acalypha Ferdinandi var. pubescens K. Hoffm.
 5733. Piper coiturinode Trel., n. sp. type
 3739. Piper hebetatum Trel., n. sp. type
 3740. " carilloanum C. DC.
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3741. Piper inulum Trel., n. sp.
 3743. Gilibertia arborea (L.) March.
   3744. Scapho sepalum Standleyi Ames
  3746. Cestrum poasanum Donn. Sm.
 3747. Oplismenus hirtellus (L.) Beauv.
3751. Polypodium sp. Not recognized.
   3752. Besleria Wendlandiana Hanst.
   3753. Meurocallis praestantissima (Bory) Fée
 3754. Trichilia havanensis acq.
   3757. Masdevallia anura Kränzl.
   3760. Stelis pardipes Rchb.
__ 3761. Cavendishia Smithii Hoer.
/ 3762. Warcgravia polyantha Delp.
   3764. Pleurothallis lancilabris (Rchb. f.) Schltr.
7766. Grammademia costaricana (Hemsl.) Mez
3767. Piper pseudolanceaefolium Trel.
3769. Cupania grandiflora Morton, n. sp. type
3771. Campanea Oerstedii Kl.
3772. Prymonia conchocalyx Hanst.
3773. Turpinia occidentalis (Sw.) Don 3776. Stelis leucopogon Rchb. f.
__3781. Lozania montana Standl.
   3783. Polypodium jungermannioides Kl
3785. Fregea Wercklei Schltr.
3787. Hieronyma oblonga (Tul.) Muell. Arg.
3790. Cavendishia capitulata Donn. Sm.
3791.
            11
               melastomoides (Kl.) Hemsl.
  3792. Oncidium bracteatum Rchb. f. & Warsc.
3793. Centropogon palmanus (D. Sm.) Wimmer
3794. Cuphea calophylla C. & S.
__ 3795. Viola stipularis Sw.
3796. Luehea speciosa Willd.
3797. Cissus brevipes Morton & Standl.
  3798. Tetrastylis lobata Killip
3801. Peperomia edepilata Trel., n. sp. type
3802. Lasiacis Standleyi Hitchc.
3804. Pharus parvifolius Nash
         " virescens Daell.
__3805.
-3806. Chusquea Pittieri Hack.
____3807. Piper formicitolerans var. filipes Trel., n. sp. type
  3808. " fili-terminans Trel., n. sp. type
__3810. Piper carilloanum C. DC. forma
3814. Saurauia costaricensis Donn. Sm.
3816. Wissadula excelsior (Cav.) Presl
3817. Lasiacis ruscifolia (HBK.) Hitchc.
3819. Arundinella Deppeana Nees
3820. Heliocarpus excelsior Morton
 3821. Lasiacis oaxacensis (Steud.) Hitchc.
 3823. Ipomoea TuerckheimiiiVatke
__ 3824. Otthoclada laxa (L. Rich.) Beauv.
3825. Capsicum tetramerum Standl. & Morton
> 3828. Schultesia lisianthoides (Griseb.) B. & H.
_ 3829. Dolicarpus dentatus (Aubl.) Standl.
3830. Ichnanthus pallens (Sw.) Munro
- 3831. Cordia polycephala (Lam.) Johnst.
3832. Piper longipetiolatum (C. DC.) Trel.
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√3835. Cynoctonum Mitreola (L.) Britt.
_3838. Lobelia xalapensis HBK.
  3840. Polygala brizoides St. Hil.
  3841. Juanulloa Sargii Donn. Sm.
- 3845. Croton glabellus L.
─3846. Peperomia pellucida (L.) HBK.
 3847. Pilea hyalina Fenzl
3848. Oxalis corniculata L. = O. repens Thig. 3849. Blechnum fraxineum Willd. sens. lat.
/ 3850. Piper bonum Trel., n. sp. type
3852. Heliocarpus excelsior Morton
-3854. Peperomia psiloclada var. memoranda Trel., n. var. type
-3857. Parathesis serrulata (Sw.) Mez
_3858. Banisteria Beechyana (Juss.) C. B. Rob.
 ∕3859. Matayba scrobiculata (HBK.) Radlk. New to Costa Rica
_3861. Passiflora biflora Lam.
 3862. Lasiacis sorghoidea (Desv.) H. & C.
          " oaxacensis (Steud.) Hitchc.
  3864. Prestonia dentigera Woodson, sp. nov. type
3865. Pavonia oxyphyllaria D. Sm.
3866. Piper sagittifolium var. reductum Trel., n. var. type
 5867. Piper falcatispicum Trel., n. sp. type
 3868. Piper pubinerve C. DC.
3871. Lasiacis scabrior Hitchc.
3872. Trichomanes rigidum Sw.
 3874. Panicum pulchellum Raddi
 3875. Lasiacis ruscifolia (HBK.) Hitchc.
            - 11
  3876.
 3877. Ichnanthus tenuis (Presl) H. & C.
3878. Panicum polygonatum Schrad.
3880. Serjania cornigera Turcz.
 /3882. Cestrum alternifolium (Jacq.) O. E. Schulz
  3884. Cydista aequinoctialis (L.) Miers
  3885. Justicia comata (L.) Lam.
  3886. Desmodium camum (Gmel.) Schin & Thell.
 5887. Ichnanthus tenuis (Presl) H. & C.
  3888. Sauvagesia erecta L.
/3890. Panicum pulchellum Raddi
3895. Hygrophila guianensis Nees
  .3896. Selaginella arthritica Alston
5897. Piper rivuli-quaeritans Trel., n. sp.
  3898. Adiantum macrophyllum Sw.
 3899. Tetrastylis lobata Killip
3900. Pavonia dasypetala (Turcz.) Standl. 3901. Cissus rhombifolia Vahl
  3903. Lindackeria laurina Presl
  15907. Piper formicitolerans Trel.
3908. Begonia filipes Benth.
   3910. Dryopteris submarginalis (L. & F.) C. Chr.
   3912. Adiantum petiolatum Desv.
 3914. Psidium Friedrichsthalianum (Berg) Ndzu
3919. Solanum Alexandri Morton, n. sp. type
3920. " salviifolium Lam.
3921. Pteris biaurita L.
  /3922. Heliocarpus appendiculatus Turcz.
 3923. Banisteria Beecheyana (Juss.) C. B. Rob.
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3924. Serjania sp. aff. racemosa Schum.
8925. Piper riparense C. DC.
/5926. Solanum jamaicense Mill.
 3927. Vismia ferruginea HBK.
 3928. Cestrum panamense Standl.
  3929. Piper pravum Trel., n. sp. type
  3930. Solanum hirsutissimum Standl.
3931. Hyptis recurvata Poit. 3939. Spananthe paniculata Jacq.
3944. Cuphea utriculosa Koehne
 /3946. Setaria vulpideta (Lam.) R. & S.
3949. Adiantum concinnum H. & B.
3950. Pogonopus speciosus (Wacq.) Schum. Rare in Costa Rica
3951. Paspalum paniculatum L.
 3952. Luehea Seemannii Tr. & Pl.
3956. Passiflora Oerstedii Mast.
  3957. Cyphomandra dostaricensis Donn. Sm.
3959. Solanum salviifolium Lam.
3960. Hybanthus attenuatus (H. & B.) G. K. Schulze
 3961. Trichilia Oerstediana C. DC.
3963. Hymenachne donacifolia (Raddi) Chase
3965. Posadaea sphaerocarpa Cogn. New to Costa Rica
3966. Begonia cuspidata C. DC. 3967. Croton glandulosus L.
3969. Polygala brizoides St. Hil.
 8970. Eleusine indica (L.) Gaertn.
  3971. Digitaria sanginalis (L.) Scop.
//3973. Polygala paniculata L.
 3974. Acalypha arvensis Poepp. & Endl.
 2975. Hybanthus attenuatus (H. & B.) G. K. Schulze?
  3976. Guazuma ulmifolia Lam.
∠3977. Panicum trichoides Sw.
  3978. Oncidium Titania Schltr.
  3980. Dolicarpus multiflorus Standl. New to Costa Rica
 /3982. Solanum celsum Standl. & Morton
  3983. Melothria guadalupensis (Spreng.) Cogn.
3984. Tectaria rheosora (Baker) C. Chr.
/3987. Saccoloma inaequale (Kunze) Mett.
3989. Psidium Friedrichsthalianum (Berg) Ndzu
_3990. Terminalia chiriquensis Pittier
 3991. Cupania fulvida Tr. & Pl.?
  3992. Eugenia Oerstediana Berg
 3993. Tetrapteris acapulcensis HBK.
  3994. Panicum zizanioides HBK.
3997. Cuphea carthaginensis (Jacq.) Macbr.
  3998. Desmodium adscendens (Sw.) DC.
  4000. Bacopa procumbens (Mill.) Greenm.
 /4003. Ipomoea Nil (L.) Roth
4004. Panicum maximum Jacq.
4005. Merremia aegyptia (L.) Urban
4008. Pseudechinolaena polystachya (HBK.) Stapf
4012. Desmodium scorpiurus Desv.
4013. Cordia bicolor DC. Apparently new to Costa Rica
  4017. Mesechites trifida (Jacq.) Muell. Arg.
_ 4021. Phyllanthus Pittieri Pax
4022. Eragrostis maypurensis (HBK.) Steud.
4027. Croton Tonduzii Pax
 4028. Zinowiewia costaricensis Lundell
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4029. Rapanea pellucido-punctata (Oerst.) Mez
-4030. Cordia bicolor DC.
 4032. Simaruba glauca DC.
 4034. Paspalum conjugatum Berg
4035. Hyparrhenia rufa (Nees) Stapf
  4037. Passiflora ambigua Hemsl.
 4039. Ichnanthus pallens (Sw.) Munro
4040. Lasiacis sorghoidea (Desv.) H. & C.
4041. Myrica plicato-lobata Berg
 4045. Eugenia Cerstediana Berg
4046. Belotia macrantha Sprague
 4051. Hieronyma oblonga (Tul.) Muell. Arg.
∠4053. Panicum Heankeanum ¹rosl
405. Coix lacryma-jobi L.
  4055. Olyra latifolia L.
 4062. Merremia umbellata (L.) Hallier
4063. Pavonia paniculata Cav.
  4064. Sida pyramidata Desp.
  4065. Paspalum virgatum L.
 /4066. Panicum grande H. & C.
 4067. Sida glutinosa Comm.
4068. Passiflora biflora Lam.
4070. Byttneria aculeata Jacq.
  4073. Dalechampia panamensis Pax.& Hoffm.
4074. Solanum accrescens Standl. & Morton
1076. Jacquemontia ciliata Sandw.
 4077. Xylosma intermedium (Tr. & Pl.) Griseb.
  4080. Alchornea latifolia Sw.
 4082. Piper deductum Trel.
  4089. Axonopus aureus Beauv.
  4090. Jacquemontia agurea (Desr.) Choisy
4091. Davilla Kunthii St. Hil.
√4093. Vismia latifolia Choisy
 4095. Paspalum decumbens Sw.
4100. Andropogon virgatus Desv.
4105. Lindsaea stricta (Sw.) Dry.
  4106. Trichomanes pinnatum Hedw.
4107. Lophidium elegans (Vahl) Presl
109 Lisianthus Seemannii (Griseb.) Perkins
4113. Pennisetum purpureum Schumach.
  4114. Scaphyglottis mescopia (Endres & Rchb. f.) B. & H.
  4115. Panicum sp.
  4119. Anguria near Tonduzii Cogn.
  4121. Ipomoea n. sp.?
 4128. Lantana grosseserrata Mo ldenke, n. sp. type
 4129. Mandevilla hirsuta (A. Rich.) K. Sch.
  Al31. Tournefortia bicolora wartz
4132. Cordia glabra L.
  4133. Cydista aequinoctialis (L.) Miers
___4134. Russelia verticillata HBK.
A141. Burmeistera cyclostigmata Donn. Sm.
 4143. Marcgravia guatemalensis Standl. New to Costa Rica
1144. Begonia n. sp.
 4145. Centropogon nutans Pl. & Oerst.
  4147. Solanum trizygum Bitter
 4151. Lygodium radiatum rantl
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#153. Acalypha macrostachya Jacq.
  4156. Jussiaea suffruticosa L.
   4157. Peperomia umbrigaudens Trel., n. sp. type
  A163. Bombacopsis sessilis (Benth.) Pitt.
 4167. Marila verapazensis Donn. Sm.
 A169. Dicranopteris bifida (Willd.) Maxon
   4170. Epidendrum imatophyllum Lindl.
 -4173. Dicranopteris pectinata (Willd.) Underw.
 -4174. Jussiaea lithospermifolia Kunth
   4177. Arundinella Deppeana Nees
 -4178. Piper praemorsicaudatum Trel., n. sp. type
 4181. Orthoclada laxa (L. Rich.) Beauv.
 4185. Asplenium Solmsii Baker
 4186. Blechnum occidentale L.
 4187. Salvia drymocharis Epling
 4188. Stemodia peduncularis Benth.
 _4191. Lippia Torresii Standl.
  4192. Salvia Holwayi Blake
 4195. Lozanella enantiophylla (D. Sm.) Killip & Morton
 4198. Cestrum dumetorum Schlecht.
 4199.
 4202. Wigandia caracasana HBK.
 4206. Lamoureuxia lanceolata Benth.
   4210. Columnea florida Morton
 4216. Piper carilloanum C. DC. form
   4218. Solanum lanceifolium Jacq.
 4224. Stachytarpheta Frantzii Polak.
 __4226. Heliocarpus appendiculatus Turcz.
 4227. Solanum jamaicense Mill.
   4231. Trizeuxis falcata Lindl.
 4235. Sapium jamaicense Sw.
 4237. Olyra latifolia L.
  4238. " caudata Trin.
 4240. Vitis tiliifolia H. & B.
4244. Protium costaricense (Rose) Engl.
 _4246. Gurania Seemanniana Cogn.
 4247. Trixis radialis (L.) Kuntze
4248. Dryopteris serrata (C v.) C. Chr.
 -4251. Eugenia Oerstediana Berg.
4252. Terminalia chiriquensis Pittier
 4253. Posoqueria latifolia (Lam.) R. & S.
 4254. Securidaca sylvestris Schlecht.
 4257. Clethra lanata M. & G.
4258. Pleonotoma variabile (Jacq.) Miers
4261. Banisteria Beecheyana (Juss.) C. B. Rob.
__4264. Croton glabellus L.
  4265. Calonictyon aculeatum (L.) House
-4266. Urera laciniata Wedd.
 -4269. Codonanthe crassifolia (Focke) Morton
_ 4271. Acalypha diversifolia var. leptostachya (HBK.) Pax & Hoffm.
__4272. Serjania mexicana Willd.
4273. Davilla rugosa Poir.
4275. Luehea speciosa Willd.
   4277. Zinowiewia costaricensis Lundell
   4278. Symplocos costaricana Hemsl.
__4279. Allophyllus panamensis Radlk.
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4281. Tetrathylacium costaricense Standl.
 4285. Odontadenia puncticulosa (A. Rich.) Pulle. New to N. America
4286. Hasseltia floribunda HBK.
4290. Piptocarpha chontalensis Baker
4291. Acalypha diversifolia var. carpinifolia (Poepp. & Endl.) Muell. Arg.
 4293. Clethra lanata M. & G.
 4295. Vochysia hondurensis Sprague
   4298. Solanum (Lycianthes) ferrugineum (Bitt.)
4299. Columnea affinis Morton, n. sp. type
4302. Phyllanthus Pittieri Pax
4305. Rischeria funebris (Donn. Sm.) Blake
___4313. Trichilia montana HBK.
 4314. Cordia polycephala (Lam.) Johnst.
4321. Byrsonima crassifolia (L.) HBK.
4323. Mendoncia Lindavii Rusby
 4325. Phyllanthus sp.
  4326. Sloanea guapilensis Standl.
  4327. Turpinia paniculata Vent.
4330. Erigeron bonariensis L.
   4331. Desmodium axillare var. Sintenisii Urban
   4336. Tetrastylis lobata Killip
   4338. Solanum rugosum Dunal
 4340. Croton glandulosus L.
 4342. Pavonia Maxonii Standl.
   4344. Desmodium axillare var. acutifolium (Kuntze) Urban
4345. Clethra lanata M. & G.
4349. Heliotropium indicum L.
   4350. Alloplectus consanguineus Morton, n. sp. type
4351. Erythroxylon lucidum var. costaricense (D. Sm.) Schulz
   4353. Drymonia spectabilis (HBK.) Mart.
#355. Heliotropium lagoense (Warm.) Gürke
4357. Cordia toqueve Aubl.
  -4362. Symplocos costaricana Hemsl.
   4369. Polypodium fallax Schl. & Cham.
4370. Ardisia compressa var. crenata Morton, var. nov. type
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 4371.
                Skutchii Morton
- 4373. Saracha procumbens (Cav.) Ruiz & Pavon
   4382. Pityrogramma calomelaena (L.) Link
 4383. Solanum (Lycianthes) synantherum Sendtn.
   4385. Paullinia fasciculata Radlk.
__4388: Solanum hirsutissimum Standl. New to Costa Rica.
  4390. Eugenia Pittieri Standl.
   4391. Eschatogramme panamensis C. Chr.
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## New and Revised Identifications of Previous Sendings.

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2168. Solanum ochraceo-ferrugineum (Dunal) Fernald (syn. Solanum diversifolium
                 Schl.) Det. Morton.
 2314. Piper æsquimetrale Trel. n. sp. type (not P. sesquipedale)
2364. Solanum celsum Standl. & Morton n. sp. type (not S. bicolor)
2376. Clusia oblanceolata Rusby (not Chrysochlamys sp.) Det. Standley
2387. Cestrum Baenitzii Lingelsh. (not C. laurifolium) Det. Morton
2415. Eupatorium vulcanicum Benth.
2459. Cestrum mariquitense var. latifolium (Francey) Standl. & Morton
(not <u>Cestrum</u> n. sp.) Det. Morton
2519. Hasseltia floribunda HBK. (not <u>H. mexicana</u>) Det. Morton
2576. Justicia Oerstedii Leonard (not J. glabra) Det. Leonard
2670. Lundia corymbifera (Vahl.) Sandw. (not Arrabidaea sp.) Det. Sandwith.
2728. Solanum ciliatum Lam. (not S. aculeatissimum) Det. Standley & Morton
2773. Phyla scaberrima (A. L. Juss.) Moldenke (not Lippia reptans) Det. Moldenke
2862. Capsicum tetramerum Standl. & Morton n. sp. type (not C. viscidum)
2865. Piper obiter-sericeum Trel. n. sp. type (not P. obitu-sericeum)
2876. Ipomoea Nil (L.) Roth (not I. hederacea)
                                                 Det. Morton.
2979. Solanum accrescens Standl. & Morton, n. sp. type
3012. Justicia Skutchii Leonard, n. sp. type.
3017. Mikania eupatorioides Blake (not Eupatorium sp.) D.t. Blake
3032. Alloplectus tetragonus (Oerst.) Hanst. (not A. elegantissimus Morton ined.
3041. Mikania eupatorioides Blake n. sp. type (not Eupatorium sp.)
3045. Eupatorium vulcanicum Benth. Det. Blake
3063. Jacquemontia ciliata Sandw. (not J. menispermoides). Det. Morton.
3071. Crotalaria pilosa var. Skutchii Senn, var. nov. type (not C. pterocaulon)
3119. Centropogon palmanus (D. Sm.) Wimmer. Det. McVaugh
3128. Eupatorium angulare Rob.
3158. Gurania cfr. Pittieri Cogn. Det. Morton
3165. Metastelma filisepalum Standl. Det. Morton
3169. Cyclanthera Langei Cogn. Det. Morton
3179. Capsicum macranthum Standl. & Morton
3211. Utricularia Endresii Rchb. Det. Morton
3213. Vittaria lineata (L.) J. E. Sm. Det. Maxon
3228. Burmeistera Pittieri Wimmer. Det. McVaugh
3231. Cavendishia melastomoides (Kl.) Hemsl. Det. A. C. Smith
                 costaricensis Hoer. Det. A. C. Smith
3245. Disterigma Humboldtii (Kl.) Nied. Det. A. C. Smith
3247. Gaultheria gracilis Small.
                                       11 11 11
3254. Capsicum macrophyllum (HBK.) Standl. Det. Standl. & Morton
3255. Aegiphila aculeifera Moldenke. Det. Moldenke
3280. Solanum roblense Bitter. Det. Standl. & Morton
3283. Burmeistera Pittieri Wimmer Det. McVaugh
3286. Solanum parcebarbatum Bitter Det. Standl. & Morton
3291. Lippia costaricensis Moldenke. Det Moldenke
3313. Capsicum stenophyllum Morton & Standl. (not C. macrophyllum) Det. Standl
3317. Cavendishia Endresii Hemsl. Det. A. C. Smith
                                                                    & Morton
3332. Meliosma panamensis Standl. New to Costa Rica. Det. Morton
3335. Capsicum maculatum Standl. & Morton, n. sp. type
3355. Markea venosa Standl. & Morton, n. sp. type
3358. Buddleia americana L. Det. Morton
3360. Alloplectus multiflorus (Oerst.) Hanst. (not Drymonia scandens Morton ined.)
3372. Burmeistera aurobarbata (Wimmer) Wimmer. Det Morton
3373. Cavendishia capitulata D. Sm. Det. A. C. Smith
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W.R.M. 114.9 = 1541

### Costs Rice Plants collected by Dr. Alexander F. Skutch

Additions and corrections to pravious lists.

monum) 2220 Siperuna patelliformis Perkins (Not 5. niceraguensis) Cyper 2271 Elsocharis goniculata (L.) 2. Br. (not 2. interstingta) Sig x 2506 Lachaerium longifolium Benth. (syn. W. costericanum) det. Hoehne 2553 Cyphomandra costaricensis D. Sm. Rub 2559 Ladenbergia sericophylla Standl. (not L. calycins) det. Standl. 2562 Boeimeria remiflora var. cuspidata Wedd. (not 9. ulmifolia) det. Millip 2569 Guatteria recurvisepala Pries n. sp. (reported as Guatteria n. sp.?) 2609 Mollinedia discrepans Morton (not M. Finchotisma) " 2628 \$E 90 TimacV2658 Belotia Campbellii Sprague (not B. macrantha) det. Bullock 2760 Polypodium enterosoroides Christ (not P. percrassum) det. Maxon 2784 Jussieen foliobractenta Munz ined. (not J. peruviana aff. ) det. Munz 2957 Pithecellobium longifolium (H.&B.) Standl. (not P. Standleyi) 1 5 - 1 3085 Hollinddie discrepens Morton, n. sp. type (not M. Pinchotians) haring S131 Siparuna patelliformis Perkins ( not paralleloneura or Tonduziana) 3315 Inga latipes Pitt. (not I. luculents n. sp. ined) 1 st. flowering material collected. 12 - X3324 Schlegelia Ramizii var. macrandra Sandw. var. nov. det. Sandwith 3636 Pteris paucinervata Feé (not pteris n. sp. ) det. Laxon A 3884 X Paragonia pyramidata (Rich.) Bur. (not Cydista acquinoctialia) det. Sandwath 11 X 4183 14 18 18 18 18 18 4155 Jussiaes suffrations L. (erroneously reported as 4156)

4156 Peperomia umbrigaudens Trel. n. sp. type (errons)usly reported as 4157)

W.R.N. JUL 3 = 1441

# Losta Rica Plants collected by Dr. Alexander F. Skutch (Acc. no. 148934)

5 th. consignment, second report.

Identified by C. V. Forton, U. S. National Museum, July, 1940.

3387 Lozanella enantiophylla (D. Sm.) Killip & Morton 3388 Phytolacca icosandra L. 3589 Phytolacca rivinoides Kunth & Bouche' 3390 Rondeletia Cooperi Standl. ? ex char. 3393 Hydrangea Oerstediii Briq. 3400 Cissampelos fasciculata Benth. Rub 3402 Palicourea n. sp. ? 3414 Begonia sp. 3416 Sisynchium tinctorium H. B. K. 9 3430 Guatteria oliviformis D. Sm. det. R. E. Fries 3439 Psychotria pithecobia Standl. 3447 Smilax Engleriana Apt 5473 Rubus glaucus Benth. Rub 3475 Palicourea lasiorhachis Oerst.? 3478 Clematis dioica L. 3483 Clematis dioica L. Cyclantic 3486 Carludovica microphylla Oerst. √ 3496 Desmodium campyloclados Hemsl. det. B. Schubert 3500 Hoffmannia pallidiflora Standl. 3502 Prunus cornifolia Koshne 3507 Anthurium porrectum Schott 3508 Holtonia n. sp.? √3518 Gymnogramma congesta Christ det. W. R. Maxon 3521 Myriocarpa longipes Liebm. det. E. P. Killip 3524 Rubus vulcanicola (D. Sm.) Rydb. √3532 Bomarea Porschiana Cuf. det. E. P. Killip √3559 Hymenophyllum intercalatum Christ 3562 Dioscorea Standleyi Morton 3564 Pithecellobium costaricense (B. & R.) Standl. 3565 Urera caracasana (Jacq.) Griseb. var. det. E. P. Killip √3568 Phenax hirtus (Sw.) Wedd. 3569 Phoradendron gracilispicum Trel. 25 - 13570 Dendrophora biserrula Eichl. 3585 Drimys Winteri Forst. 3587 Hoffmannia longipetiolata Polak.?
3591 Passiflora brevipila Killip n. sp. type
3592 Bilea Pittieri Killip det. E. P. Killip 3593 Anthurium pallens Schott 3595 Psychotria sp. 3597 Siparuna grisea erkins 3598 Siparuna paralleloneura Perkins
3599 Siparuna patelliformis Perkins
3602 Urera caracasana (Jacq.) Griseb. var. det. E. P. Killip
3603 Boehmeria ramiflora var. cuspidata Wedd. " "

\_ 4 - 3606 Persea Schiedeana Nees 3607 Lozanella enantiophylla (D. Sm.) Killip & Morton √ 3613, Hymenophyllum costaricense v.d.B. 3626 Cavendishia quereme (H.B.K.) B.& H. det. A. C. Smith 3627 Gynandropsis pulcherrima Standl. √ 3639 Hymenophyllum sp. Perhaps new. √3640 Stellaria ovata Willd. 3642 Cissampelos fasciculata Benth. 3644 Anthurium sp. 1 3645 Borreria laevis (Lam.) Griseb. √3646 Pilea parietaria (L.) Blume det. E. P. Killip 5652 Anthurkum joseanum Engl. 3657 Anthurium subcordatum Schott 3662 Gynandropsis pulcherrima Standl. √3665 Anthurium scandens (Aubl.) Engl. 3669 Rubus abundus Rydb. 368% Diplazium macrophyllum Desv. 3687 Anthurium Pittieri Engl. Kay- 3689 Hoffmannia hondurensis Standl.? Ruly 3690 Coussarea Austin-Smithii Standl. 3692 Diplazium obscurum Christ 3694 Anthurium Pittieri Engl. 3702 Trems micrantha (L.) Blume June 3703 Juneus microcephalus H. B. K. 3705 Inga laurina (Sw.) Willd. 3706 Anthurium protensum Schott 10 5 3711 Sickingia n. sp.? 3720 Cephaelis axillaris Sw. 3721 Citharexylum caudatum L. 3723 Mucuna urens (L.) DC. 3725 Palicourea chiriquina Standl.? 3736 Phoebe Pittieri Mez 3737 Lindsaea horizontalis Hook. 3745 Ocotea sp. 3748 Uncinia hamata (Sw.) Urban Walk 3750 Tera alceifolia Gaud. det. E. P. Killip 3755 Ocotea pentagona Mez 5756 Psychotria Torresiana Standl. 3763 Inga latipes Pittier 3770 Rubus impressus Norton n. sp. type 3774 Elaphoglossum teetum (H. & B.) Moore 3777 Symplocos Austin-Smithii Standl.? ex char. the Brunellia costaricensis Standl. 3780 Inga latipes Pittier 3782 Dichapetalum Donnell-Smithii Engl. 3784 Struthanthus marginatus (Desr.) Blume 3788 Dichapetalum Donnell-Smithii Engl. 17 Tree 3789 Roupala glaberrima Pittier

W.R.M. JUL 9"11346

# Costa Rica Plants collected by Dr. Alexander F. Skutch (Acc. no. 151709)

#### 6th consignment, second report

Acanthaceae identified by E. C. Leonard, Annonaceae by R. E. Fries, the remainder by G. V. Morton, U. S. "ational Museum, July, 1940

10 a 3799 Justicia metallica Lindau 3800 H H 3813 Siparuna patelliformis Perkins 3815 Cassia n. sp.? = 2428 3822 Athyrocarpus rufipes (Seub.) Standl. Flo : 3827 Casearia sylvestris Sw. To a at 3838 Phthirusa pyrifolia (H. B. K.) Sichl. 5834 Inga confusa B. & R. Taur. 3856 Nectandra globosa (Aubl.) Mez 3957 Oryctanthus spicatus (Jacq.) Eichl. 3859 Nuphorbia hirta L. 3842 Jacobinia macrantha (Benth.) Hemsl. 3943 Justicia pectoralis Jacq. Larar 3844 Phoebe neurophylla Mez & Pitt. 3851 Blechum costaricense Oerst. 3853 Duphorbia gramines Jacq. 3860 Canavalia panamensis Piper ? √ 3869 Desmodium axillare var. Sinténisii Urban det. B. Schubert 3970 Trichomenes diversifrons (Bory) Nett. det. W. R. Maxon 3872 Trichomanes rigidum Sw. 3879 Trema micrantha (L.) Blume 3883 Psychotria psychotriifolia (Seem.) Standl. 3889 Stellaria ovata Willd. 3891 Tonina fluviatilis Aubl. ∨ 3893 Desmodium scorpiurus (Sw.) Desv. det. B. Schubert 5894 Centrosema pubescens Benth. America 3902 Cyathula achyranthoides (H.B.K.) Moq. 3904 Psychotria viridis R. & P. 3906 Nectandra sp. 5909 Psychotria cuspidata Bredem. v 3915 Desmodium Wydlerianum Urban det. B. Schubert 3915 Inga punctata Willd.
3916 Xylopia frutescens Aubl.
3917 " aromatica (Lam.) Wart. 5918 Calopogonium mucunoides Desv.
3932 Oldenlandia herbacea (L.) DC.
3936 Indigofera mucronata Spreng.
3940 Lonchocarpus guatemalensis Benth.
3941 Aphelandra Sinclairiana Nees Ocano 3942 Chaetochlamys panamensis Lindau 5947 Portulaca oleracea L. 7020 3948 Hirtella americana L. (syn. H. mollicoma H.B.K.) 5 3953 Wachaerium acanthothyrsus Pittier 70- 5955 Psychotria marginata Sw. 70-70 3958 Cissampelos tropaeolifolia DC. 3972 Borreria ocymoides (Burm.) DC. 3979 Odontonema strictum (Ness) Kuntze

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Rul- 3981 Condaminea corymbosa (R. & P.) DC. New to Costa Rica.
  That -- 3985 Siparuna patelliformis Perkins
  nu de 3986 Cecropia mexicana Nemsl.
   Rub- 3095 Sommera grandis (Bartl.) Standl.
  3996 Calopogonium caekruleum Benth.
  Period. 5999 Heberanthera remiformis R. & P.
 4001 Canna lutea Mill.
 4006 Callisia monandra (Sw.) Schult.
       4009 Psychotria brachiata Sw.
  4011 Ficus costaricensis (Liebm.) Miq.
4016 Dioscorea convolvulacea var. glabra Uline
  4023 Struthanthus polystachyus (R. & F. ) Blume
 4024 Erythrina Berteroana Urban
4025 Justicia Oerstedii Leonard
 4031 Rhynchosia pyramidalis (Lam.) Urbam
4038 Justicia pectoralis Jacq.
 4038 Tetrapteris sp.? Fruit necessary
 4042 Phoebe costaricana Nez & Pitt. Previously known only from type.
4047 Holtonia myriantha Standl.
4046 Smilax panamensis Morang
  4049 Weliosma grandiflora Morton, n. sp. type
 19 4059 Strychnos sp. Perhaps new.
4060 Justicia pectoralis Jacq.
       4069 Suphorbia hypericifolia L.
 Que 4075 Hemidiodia ocymifolia (Willd.) Schum.
 1 COC 4083 Pourouma espera Trecul.
 4086 Ilex Valerii Standl.?
       4087 Centrosema virginianum (L.) Benth.
  4096 Coccocypselum glabrum DC. New to Costa Rica.

Rus. 4098 Palicourea triphylla DC.

**Yord 4103 Nyris macrocephala Vahl
       4111 Inga marginata Willd.
  fal- 4116 Sommera grandis (Bartl.) Standl.
 4117 Dicliptera unguiculata Nees
 4120 Caesalpinia pulcherrima L.
  4125 Schlegelia Ramizii var. costaricensis Sandw. var. nov. type
       4127 Lindsaea lancea (L.) Bedd.
4130 Hirtella americana L.
 monin 4136 Siparuna niceraguensis Wemsl.
4140 Bicliptera Skutchii Leonard
  Re. 4142 Faramea suerrensis D. Sm.
 4148 Rondeletia n. sp. ?
4150 Capparis discolor D. Sm.
  4.52 Machaerium floribundum Benth.
 4164 Ficus Tonduzii Standl.
4165 Psychotria Valeriana Standl.? ex char.
       4166 " brachiata Sw.
4168 Hippocrates volubilis L. det. A. C. Smith
   _ 4172 Nectandra sp.
  4182 Nectandra glabrescens Benth.
4189 Hamelia patens Jacq.
  Lenaca & 4194 Mauria birringo Tul.
        4201 Hymenophyllum fucoides Sw.
 4203 Dicliptera unguieulata Nees
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4207 Marica gracilis herb.
4209 Muellie tetrastichenthe Lindau
4212Aphelandra Tonduzii Leonard
Gralia 4215 Sciodaphyllum systylum D. Sm.
4214 Foikilacanthus macranthus Lindau
Rull 4215 Rudgea Skutchii Standl.
4217 Capparis discolor D. Sm.
4221 Dioscorea cyanisticta D. Sm.
4221 Dioscorea cyanisticta D. Sm.
4222 Rondeletia buddleioides Benth.
Modas 4225 Pourouma aspera Trecul.
Crac 4226 Oncidium ascendens Lindl. det. O. Ames
4237 Inga multijuga Benth.
4238 Mendoncia Lindavii Rusby
Austral 4238 Mendoncia Lindavii Rusby
Austral 4238 Alternanthera laguroides Standl.
4239 Acacia Farnesiana (L.) Willd.
Mayuntic 4241 Virola Roschnyi Warb.
Folgy 4242 Triplaris americana L.

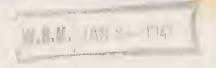
Costa Rica Flants collected by Dr. Alexander F. Skutch (Acc. no. 158072)

7th consignment, second report.

Identified by C. V. Morton, U. S. Maticnal Museum, July 1940.

ica . 4845 Entada gigas (L.) Fawe. & hendle 4250 Pterocarpus Nayosii Benth. ) Fac 4256 Comssapos Donnell-mithii Lildbr. hyristic 4280 Virola hoschnyi harb. Works 4202 Conssepor Donnell- Smithii kildbr. a 4265 Figus colubringe standl. More 4267 Coussupos Donnell- Smithii bildbr. fra 4268 Machaerium marginetum Standi. Jan 4270 Ocotes cernus (Lees) Mes 4274 Pterocarpus Hayesli Lenth. Truck 4285 (issempelos pareira L. 4298 Ings marginate billd. . 4292 Celtis imusnaes (Jacq.) Sargent Rul- 0204 hamelia patena axillaris Sw. In 4298 Pithacellobium longifolium (R. & B.) Standi. faur 4805 Ocotes ira Men & Pitt. FLc 4504 Casearia javitensis H.B.k. har 4511 Siperuna guianensis aubl. 4315 Citharexylum Cooperi Standl. det. H. Moldenke 4516 Machaerium darienense Pittier. New to Costa Rica 4517 Mollinia Standleyi R. 4. Fries det. Fries 4310 Paychotria horizohtalis Dw. Run- 4319 Hamulia patuna Jaeg. fur 4502 Hudges cornifolis (H.& B.) Standl. 2-9\_ 4524 Stryphnodendron excelsum Harms Journa 4529 Nectandra sp. 4529 Phoebs neurophylla Wez & Pittier On - - C4559 Kylepis aromatics (Lam.) -ert. det. Fries 434 Cymbopetalum contaricense (D. Sm.) Fries det. Fries 4547 Psychotria Valeriana Standl.? ex char. Rul- 4358 Declieuxia fraticosa var. mexicana (DC.) Standi. 4368 Nuphorbis thymifolis L. - 4566 Setaria goniculata (Lam.) Seauv. 4572 Capparis pp. aff. discolor D. Sm. Em ac 4374 Nectandra, panamensis Mer 4575 Paspakim plicatulum Lichz. det. A. Chase

4877 Croton &kutchii Standl. n. sp. type



# Costa Rican plants collected by A. F. Skutch Corrected identifications

2173. Tibouchina longifolia ( Vahl) Baill. (not T. Bourgeaui) det. Gleason X2292. Lippia costaricensis Moldenke n. sp. type (not L. myriocephala) III 253-X2477. Miconia punctata (Desr.) D. Don (not M. habrolepis) det. Gleason C.R 223-2503. Conostegia subcrustulata Triana (not Miconia sp.) det. Gleason 273-¥2506. Machaerium longifolium Benth. (syn. M. costaricanum Pitt.) det. Hoehne Ⅱ 3 129-2509. Cordia eriostigma Pitt. (not C. glabra) det. Johnston C. 11 773 X2582. Conostegia xalapensis (Bonpl.) Don (syn. C. lanceolata) det. Gleason €. € \$ 2935. Tradescantia multiflora Swartz New to Costa Rica (not T. cumanensis) √ 2947. Eleocharis Sellowiana Kunth (not E. Pittieri) det. Svenson √ 3049. Eleocharis Sellowiana Kunth (not E. Pittieri) det. Svenson ▼3101. Leandra melanodesma (Naud.) Cogn. (not L. costaricensis) det. Gleason C. & - 3246. Telipogon setosus Ames n. sp. type (reported as Telipogon sp.) 3297. Lippia costaricensis Moldenke Reported erroneously as 3291. II 4132. Cordia eriostigma Pitt. (not C. glabra) det. Johnston ✓4165. Psychotria solitudinum Standl. (not P. Valeriana?) det. Standley 111. - 71 √4224. 3tachytarpheta mutabilis var. violacea Moldenke var. nov. type III. 64 (not S. Frantzii Polak) 4325. Phyllanthus Skutchii Standl. n. sp. type (reported as Phyllanthus sp.) 157 4326. Sloanea palmana Standl. (reported as S. guapilensis) det. Standley 14-1-15 172 4340. Croton lobatus L. (reported as C. glandulosus L.) det. Standley I. 59 4347. Psychotria solitudinum Standl. n. sp. type (reported as P. Valeriana?) IL-7/ 270 4847. Erythroxylon Skutchii Standl. n. sp. type (reported as E. amplum & 2 % Benth.)

Costa Rican plants collected by A. F. Skutch 4th to 8th Consignments, Supplementary report Melastomaceae identified by H. A. Gleason, Annonaceae by R. E. Fries, Apocynaceae by Robert E. Woodson, Eleocharis by H. Svenson, Rubiaceae and some others by P. C. Standley, the remainder by C. V. Morton, December 1940. ✓3413. Blakea anomala D. Sm. √3417. Miconia glaberrima (Schl.) Naud. √3556. Rauwolfia sarapiquensis Woodson n. sp. type 3563. Conostegia Pittieri Cogn. √3768. Miconia costaricensis Cogn. ✓ 3892. Aciotis rostellata (Naud.) Triana -3905. Miconia caudata DC. √3964. Centradenia Maxoniana Gleason √4020. Selaginella sp. √4033. Miconia ibaguensis (Bonpl.) Triana 4044. Henriettella Seemannii Naud. √4057. Miconia longifolia (Aubl.) DC. √4072. Miconia Matthaei Naud. ✓4081. Miconia hondurensis D. Sm. √4084. Miconia chamissois Naud. 4088. Clidemia rubra (Aubl.) Mart. ✓4092. Miconia pteropoda Benth. √4094. Clidemia neglecta D. Don ✓4099. Miconia borealis Gleason ✓4101. Acisanthera recurva (L. C. Swith Rich.) Griseb. ✓4102. Miconia rubiginosa (Bonpl.) DC. ✓4104. Eleocharis pachystyla (C. Wright) Clarke ✓4108. Miconia pteropoda Benth. √4122. Miconia punctata (Desr.) D. Don ✓4154. Miconia hondurensis D. Sm. ✓4159. Conostegia Bernoulliana Cogn. 4160. Miconia dodecandra (Desr.) Cogn. √4162. Henriettella flavescens (Aubl.) Triana √4171. Guatteria dolichopoda D. Sm. √4175. Conostegia xalapensis (Bonpl.) D. Don (C. lanceolata Cogn.) ▶ 4205. Centradenia grandifolia (Schl.) Endl. ✓4249. Dryopteris opposita (Sw.) Urban ✓4259. Miconia scorpioides (E. & S.) Naud. 4225xxViconiaxscorpioidesxtExxExXxXxXxXxXxXxXxXxX ✓4276. Miconia argentea (Sw.) DC. ✓4280. Calyptrella cycliophylla D. Sm. √4289. Miconia laevigata (L.) DC. √4297. Miconia impetiolaris (Sw.) D. Don ✓ 4300. Ween psychotrioides D. Sm. det. Standley 🎍 4312. Dichromena leucocephala Mx. det. Standley √4320. Miconia Schlimii Triana 4337. Hasseltia macroterantha Standl. n. sp. type ▶ 4348. Miconia laevigata (L.) DC. / 4352. Miconia Matthaei Naud. √4354. Tassadia recurva Rusby det. Standley

- ✓4358. Miconia dodecandra (Desr.) Cogn. ✓4360. Henriettea succosa (Aubl.) DC.
  - 4361. Polypodium n. sp.
- -4368. Ophioglossum reticulatum L.
- ✓4381. Dryopteris opposita (Sw.) Urban
- ✓4386. Neea psychotrioides D. Sm. det. Standl.
- ✓4387. Miconia impetiolaris (Sw.) D. Don
  - 4567. Garcilassa rivularis P. & E. det Standl.
  - 4588. Gonzalagunia ovatifolia (D. Sm.) Rob.
  - 4589. Psychotria mima Standl. n. sp. type
  - 4634. Sommera grandis (Bartl.) Standl.
  - 4640. Miconia punctata (Desr.) D. Don
  - 4642. Manettia barbata Oerst.
  - 4684. Alfaroa costaricensis Standl.
  - 4685. " " "
  - 4690. Centradenia Maxoniana Gleason
  - 4731. Miconia caudata DC.
  - 4739. Mandevilla hirsuta (Rich.) K. Sch.
  - 4747. Gonzalagunia exaltata Standl. type
  - 4748. Hamelia magnifolia (Wernh.
  - 4758. Calatola costaricensis Standl.
  - 4763. Psychotria marginata Sw.
  - 4764. Psychotria brachiata Sw.
  - 4791. Topobea Durandiana Cogn.
  - 4793. Villaresia costaricensis D. Sm.
  - 4800. Tabernaemontana longipes D. Sm.
  - 4808. Clidemia hirta (L.) D. Don
  - 4833. Miconia impetiolaris (Sw.) DC.
  - 4861. Psychotria Berteriana DC.
  - 4867. Miconia Schlimii Triana
  - 4882. Stemmadenia Donnell-Smithii (Rose) Woods.
  - 4889. Miconia pteropoda Benthī
- 4893. Clidemia s essiliflora var. angustifolia Cogn.
  - 4894. Blakea gracilis Hemsl.
  - 4897. Randia subcordata Standl.
  - 4920. Clidemia dentata D. Don
  - 4924. Miconia laevigata (L.) DC
  - 4925. Randia armata (Sw.) DC.
  - 4926. Posoqueria latifolia (Rudge) R. & S.
  - 4935. Hoffmannia Tonduzii Standl.
  - 4948. Ossaea aff. diversifolia
  - 4949. Psychotria grandis Sw.
  - 4950. Chiococca alba (L.) Hitchc.

#### Omitted from above

- 4843. Conostegia sp.
- 4941. Contstegia sp.
- 4952. Topobea sp.

Service of the servic

Costa Rican Compositae collected by A. F. Skutch

(5th Consignment, supplementary report)

(Accession no. 148934)

Identified by S. F. Blake, December 1940.

- ~ 3395. Cirsium pinnatisectum (Klatt) Petrak
- ✓3398. Baccharis trinervis (Lam.) Pers.
- ✓ 3399. Schistocarpha sp.
- ✓ 3440. Senecio streptothamnus Greenm.
- ✓3443. Baccharis trinervis (Lam.) Pers.
- ✓ 3444. Archibaccharis torquis Blake
- √3445. Cnaphalium roseum HBK (?)
- 3446. Vernonia canescens HBK
- ~3456. Eupatorium hymenophyllum Klatt
- √3467. Gnaphalium spicatum Lam.
- √3470. Eupatorium anisochromum Klatt
- ✓3487. " pycnocephalum Less.
- ✓3489. Liabum polyanthum Klatt
- ₩3490. Zexmenia virgulta Klatt
- ~ 3503. Eupatorium aschenbornianum Schauer
- ✓3505. Mikania skutchii Blake
- √3544. Otopappus verbesinoides Benth.
- √ 3550. Eupatorium pittieri Klatt
- ✓3555. Alomia microcarpa (Benth.) Robinson
- ✓3615. Eupatorium standleyi Robinson
- √3619. Cirsium costaricense (Polak.) Petrak
- √3622. Jungia ferruginea L. f.
- 3655. Mikania sp.
- √3696. Liabum bourgeaui Hieron.
- ~3699. Eupatorium thieleanum Klatt
- ✓ 3700. Senecio megaphyllus Creenm.
- ✓ 3786. Eupatorium parasiticum Klatt

R.M. DEC 26 1940

### Guatemala ferns, collected by A. F. Skutch

### Identifications by C. A. Weatherby

1162. Cyathea suprastrigosa (Christ) Maxon 1185. Maphoglossum piloselloides (Presl) Moore

1218. Botrychium pusillum Underw. 1295. Polypodium cryptocarpon Fée 1325. Lycopodium linifolium L. 1352. Adiantum platyphyllum Sw.

791. Cheilanthes lendigera Sw. 793. Elaphoglossum Schiedei (Kze.) Moore 794. 795. Cheilanthes intramarginalis (Kaulf.) Hook. 796. Elaphoglossum Schiedei (Kze.) Moore 799. Notholaena bonariensis (Willd.) C. Chr. 800. Polystichum distans Fourn. 802. Elaphoglossum plicatum (Cav.) C. Chr. 805. Pallaea cordata (Cav.) J. Sm. 806. " ternifolia (Cav.) Link 807. Notholaena bonariensis (Willd.) C. Chr. 814. Woodsia mollis (Kaulf.) J. Sm. 818. Elaphoglossum 825. Asplenium praemorsum Sw. 840. Cystopteris fragilis (L.) Bernh. 865. Plecosorus speciosissimus (A. Br.) Moore 875. Pteris orizabae M. & G. 884. Asplenium pimpinellifolium Fée & Schaffn. 886. Asplenium achillaefolium (M. & G.) Liebm. var. grande (Fée) Baker 902. Trichomanes capillaceum L. 903. Marattia excavata Underw.? 904. Polypodium cultratum Willd. 907. Trichomanes Kunzeanum Hook. (T. mexicanum v. d. B.) 920. Dryopteris 939. Hymenophyllum hirsutum Sw. sens. lat. 940. Vittaria lineata (L.) Sm. 957. Rhipidopteris peltata (Sw.) Schott 973. Dennstaedtia exaltata (Kze.) Hieron. 977. Asplenium alatum H. & B. 983. Blechnum ensiform (Liebm.) C. Chr. 984. Elaphoglossum 1047. Gleichenia Underwoodiana (Maxon) C. Chr. 1048. Alsophiloa quadripinnata (Gmel.) C. Chr. 1053. Adiantum Capillus-Veneris L. 1058. Gleichenia Rancroftii Wook. 1039. Llavea cosdifolia Lag. 1081. Selaginella cuspidata Link 1084. Lycopodium complanatum L. var. validum Weatherby 1095. Cheilanthes membranacea (Davenp.) Maxon 1102. Botrychium pusillum Underw. 1118. Anemia guatemalensis Maxon 1141. Pellaea rigida (Sw.) Hook. 1149. Notholaena sinuata Kaulf. 1160. Dryopteris denticulata (Sw.) Ktze. f. jucunda (Fée) C. Chr.

1369. Adiantum pulverulentum L.

1875. Gleichenia bifida (Willd.) Spreng.

1385. Asplenium abscissum Willd. sens. lat.

1410. Cyathea mexicana Schlecht. & Cham.

1466. Nephrolepis pectinata (Willd.) Schott

1467. Polypodium plebejum Cham. & Schlecht. var. Cooperi Baker

1478. Adiantum fructuosum Kze.

1492. Odontosoria guatemalensis Christ

1498. Adiantopsis radiata (L.) Fée

1526. Polypodium plebejum Cham. & Cchlecht. var. Cooperi Baker

1551. Cheilanthes lendigera (Cav.) Sw. 1596. Pillaea atropurpurea (L.) Link

1604. Anemia hirsuta (L.) Sw.

1664. Hymenophyllum myriocarpum Hook.?

1669. Polypodium Friedsrichsthalianum Kze.

1698. Cyathea Turckheimii Maxon

1757. Roodwardia spirulosa Mark. & Gal.

1758. Dryopteris patula (Sw.) Underw. var. chaerophylloides (Moritz)

1759. Rlaphoglossum piloselloides (Presl) Moore

1789. Lindsaea lancea (L.) Bedd.

1792. Asplenium auritum Sw.

1795. Tectaria heracleifolia (Willd.) Underw.

1799. Hymenophyllum ciliatum Sw.

1804. Oleandra articulata (Sw.) Presl

1805. Polybotrya cervina (L.) Kze.

1807. Saccoloma elegans Kaulf.

1808. Dantaccelliptica Sin.

1823. Polypodium fraxinifolium Jacq.

1853. Cochlidium rostratum (Hook.) Maxon

1843. Polypodium angustum (H. & B.) Liebm.

1850. Lycopodium pathyodes Cham. & Schlecht

1853. Equisetum giganteum L.

1861. Lonchitis hirsta L.

1864. Fteris mexicana (Fée) Fourn.

1964. Notholaena simuata Kaulf.

2013. Polypodium crassifolium L.

s.n. Pryopteris falcata (Letbm.) C. Chr.

Bud. 1940.

# SCROPHULARIACEAE COLLECTED BY ALEXANDER F. SKUTCH in GUATEMALA

Berendtiella rugosa (Benth.) -- 1134

Castilleja attenuata Pennell, TYPE -- 1251

Hemichaena fruticosa Benth. -- 1172

" pedunculata Pennell - 5 1519

" skutchii Pennell, " = 1897

" viscosa H.B.K. -- 1151

Leucocarpus perfoliatus (H.B.K.) Benth -- 1488

Penstemon gentianoides (H.B.K.) -- 828, 1250,

Russelia crenatifolia Pennell, TIPE -- 951

" -- 1448, 2085

" flavoviridis Blake -- 1770

Sibthorpia repens (L.) Kuntze -- 1088

Stemodia skutchii Pennell -- 1391

A. F. Skutch - Ecuador

Grasses, det. J. R. Swallen

Reported March 5, 1940

4392.	Lasiacis ruscifolia (H.B.K.) Hitchc.
4397.	
4412.	Ichnanthus candicans (Nees) Doell.
4413.	Ichnanthus axillaris (Nees) H. & C.
4414.	Panicum pilosum Sw.
4423.	Pseudechinolaena polystachya (H.B.K.) Stapf.
4452.	Ichnanthus pallens (Swartz) Munro.
4454.	Pseudechinolaena polystachya (H.B.K.) Stapf.
4460.	Lasiacis sorghoides (Desv.) H. & C.
4471.	Arthoclada laxa (Rich.) Beauv.
4535	Phamis virescens Doell